

From the Author

THE
PERIPLUS
OF THE
ERYTHREAN SEA.
PART THE SECOND.

PERITUS

OF THE

W. & A.



H. & T. H.

PART II. SECOND

Strahan and Preston,
Printers-Street.

214 c. 17

THE
P E R I P L U S
OF THE
E R Y T H R E A N S E A.

PART THE SECOND.

CONTAINING,
AN ACCOUNT OF
THE NAVIGATION OF THE ANCIENTS,
FROM THE GULPH OF ELANA, IN THE RED SEA,
TO THE ISLAND OF CEYLON.

WITH DISSERTATIONS.

By WILLIAM VINCENT, D.D.

Γράφω δὲ ταῦτα, πολλοῖς μὲν ἐντυχῶν ΠΕΡΙΠΛΟΙΣ, πολλὴν δὲ περὶ τὴν τούτων ἱστορίαν
ἀνελεύσας χρόνον.

MARCIANUS HERACLEOTA, apud HUDSONUM, p. 62.

LONDON:

PRINTED FOR T. CADELL AND W. DAVIES, IN THE STRAND.

1805.

THE
 P R I N T E D
 OF THE
 TO
 E R O T H E R E A N D
 THE KING

AN ACCOUNT OF
 THE NAVIGATION OF THE ANCIENTS



W H E N I was first permitted to
 dedicate the former part of this Work to
 Your Majesty, I am sensible that those that
 the remainder would be brought to a conclu-
 sion. But the consequences of Your Majesty's
 condescension in my favour have been better
 tranquillity, and health. In possession of these
 blessings, I returned naturally to those pur-
 suits

TO

THE KING.

SIR,

WHEN I was honoured with permission to dedicate the former part of this Work to Your Majesty, I entertained little hope that the remainder would be brought to a conclusion. But the consequences of Your Majesty's condescension in my favour have been leisure, tranquillity, and health. In possession of these blessings, I returned naturally to those pursuits

suits which have enabled me to fulfil my engagement to the Public. Impressed therefore, as I am, with a sense of the most devoted gratitude, nothing remains for me to solicit, but the continuance of the same protection to the completion, as I experienced at the commencement of the Work. And if it shall appear that the plan has been formed with judgment, and executed with fidelity, no farther qualification will be necessary to recommend it to the consideration and patronage of Your Majesty.

I have the honour to subscribe myself

YOUR MAJESTY'S

Most obedient,

most faithful,

humble Servant, and Subject,

JUNE, 1805.

WILLIAM VINCENT.

P R E F A C E.

WHETHER the following Work will afford a degree of satisfaction proportionate to the labour of compiling it, is a question not for the Author, but for others to decide. By some it may be thought digressive, tedious, and minute; while others may conceive that there are various sources of information still unexplored, which it was my duty to investigate. To the first I reply, that I thought nothing superfluous which could contribute to the elucidation of the subject proposed; and in answer to the latter I may observe, that there must be some limits assigned to collection and research. It is the office of judgment to select only such materials as will bear upon the point to be discussed; and for the exercise of this judgment, I now stand amenable to the

tribunal

tribunal of the Public. Friendly animadversions upon the errors which may occur, I shall consider, not as a cause of offence, but as the means of correction; and of remarks proceeding from a contrary spirit, I have hitherto had little reason to complain. But if the Work which I now submit to the inspection of the Public, should not obtain the same favourable reception as I have experienced upon former occasions, it shall be my last offence. In the sixty-sixth year of my age, it is time to withdraw from all my pursuits of curiosity, and confine myself to the duties of my profession.

ADVER-

ADVERTISEMENT.

THE account of Marco Polo's Map, given (Part I. p. 201.) from Ramusio, is not correct; for it has since appeared, that the Map in the church of St. Michael di Murano, is not Marco Polo's, but drawn up by Fra Mauro, a geographer at Venice; and is the Map copied for Prince Henry of Portugal.

A Fac Simile of this Map has been taken, and is expected in England every day; when it arrives, a short account of it will be given, and delivered gratis to the purchasers of this work.

The Map of Marco Polo's Travels is in the Doge's Palace at Venice, and was framed from that of Fra Mauro.

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I AM to acknowledge my obligations to Mr. Dalrymple, in regard to the present publication, in the same manner as upon former occasions: I was, by his kindness, furnished with Surveys of the Harbours and Islands on the Coast of Malabar, which have been of great use.

And to Mr. A. Hamilton, of Edinburgh, editor of a Sanskreet Dictionary, I have been indebted for the Interpretation of Sanskreet Names on the same coast. This favour was the more acceptable, as I was known to that Gentleman only by my publications; and his offer of assistance was spontaneous.

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ALPHA

THE

THE
PERIPLUS
OF THE
ERYTHREAN SEA.

ARABIA.

BOOK III.

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I. **T**HE commerce of the Ancients between Egypt and the coast of Africa, with all that concerns their discoveries to the South, has been traced in the preceding pages; and we now return
H H again

again to Egypt, in order to take a fresh departure, and prosecute our inquiries till we reach their final boundary on the East. The present Book will comprize all that concerns the commerce of Arabia, both in the interior, and on the coast.

The Periplûs is still to form the basis of our investigation; but as the object proposed is to give a general account of the communication with the East, no apology is requisite for detaining the reader from the immediate contemplation of the work itself. A variety of scattered materials, all centring at the same point, are to be collected, before a comprehensive view can be presented, or an accurate judgment formed; and if this task can be executed with the fidelity and attention which the nature of the subject requires, the general result will be preferable to the detail of a single voyage, in the same proportion as a whole is superior to its parts.

The commencement, then, of this second Voyage is again from Berenikè, and from this port there were two routes practised in the age of the author; one, down the gulph to Mooza and Okêlis direct, and the other, first up to Myos Hormus, and then across the gulph by the promontory Pharan, or Cape Mahomed, to Leukè Komè in Arabia. This latter route is the immediate object of our consideration.

LEUKÈ KOMÈ.

II. LEUKÈ KOMÈ, or the White Village, I shall place nearly at the Mouth of the bay of Acaba, the Elanitick Gulph of the ancients^{*}; and

^{*} A comparative table, containing the different distribution of the ancient names, by M. d'Anville and M. Gosselin, will be given hereafter; and I must mention once for all, that when

and my reasons for assuming this position will be given at large in their proper place. But to this village we are immediately directed by the journal, after a passage of two or three days from Myos Hormus; for here, we are informed, "was the point of communication with Petra the capital of the country, the residence of Malichas the king of the Nabatæans. Leukè Komè itself had the rank of a mart in respect to the small vessels which obtained their cargoes in Arabia; for which reason there was a garrison placed in it under the command of a centurion, both for the purpose of protection, and in order to collect a duty of twenty-five in the hundred" [upon the exports and imports].

We obtain, in these few words, a variety of particulars highly important to the subject of our consideration; for we find a native king under the controul of the Romans, a duty levied upon the trade of the natives, and the nature of the communication between the port and the capital. And if we now reflect that the intercourse with the capital was rather fixed here, at the mouth of the Elanitic gulph, than either at Elana itself, or at Ezion Geber, we shall discover the same principle as operated on the Egyptian coast, where the communication was fixed at Myos Hormus rather than Arsinoë, or at Berenikè in preference to Myos Hormus.

when I make use of M. Gosselin's Researches without mentioning his name, it is not to deprive him of the honour of his discoveries, but because it must occur so frequently that the repetition would be offensive. I had traced this coast many years before the publication of M. Gosselin's *Recherches sur la Géographie des Anciens*, 2 tomes, Paris 1798; and though he precedes me in publication, I will not apply

to him the old complaint, *male sit illis qui ante nos nostra dixerunt*.

² *ἐξαρτιζομένης*; literally, fitted out.

³ In Albuquerque's time, the foldan of Egypt received custom upon spices, and other commodities, at Judda, in the same manner as the Romans had formerly received them at Leukè Komè. *Commentar. de A. d'Albuquerque*, p. iv. c. 7.

In the age of the Periplûs, as this course was the less frequented of the two, so is it apparent that the commerce itself was of less importance; the vessels employed are Arabian, and the duty seems collected on them only: possibly the ships, which touched here after crossing from Myos Hormus, had paid the customs in that port, and made this harbour chiefly for the purpose of accommodation, or of ascertaining their route down the coast of Arabia.

Very different is the idea that I conceive of this trade while the communication with Egypt was in the hands of the Arabians themselves, previous to the appearance of Ptólemy's fleets upon the Red Sea, and their immediate communication with Sabêa; for the caravans, in all ages, from Minêa⁴ in the interior of Arabia, and from Gerrha on the gulph of Persia, from Hadramaut on the ocean, and some even from Sabêa or Yemen, appear to have pointed to Petra, as a common centre; and from Petra the trade seems to have been again branched out in every direction to Egypt, Palestine, and Syria, through Arsinoë, Gaza, Tyre, Jerusalem, Damascus, and a variety of subordinate routes that all terminated on the Mediterranean.

It is not consonant to the design of this work to enter into any commerce antecedent to history; but from analogy, from the magnificence recorded of Ninevè and Babylon, from the ruins of Thebes still remaining, there is every reason to suppose that the wealth and power of these great cities arose from a participation in this commerce; and that the Arabians were the carriers common to them all.

⁴ The position of the Minêi is dubious: from Mecca, tom. ii. p. 116.; Strabo places Bochart supposes them to be in the vicinity of Carana of the Minêans next to the Sabêans, Hadramaut; Gossellin places them two days p. 768.

This is a fact which will admit of proof as soon as history commences; but we may pause a moment to observe, that though the Chaldæans and Assyrians might have been navigators themselves, as the gulph of Persia opened a communication for them with the Indian Ocean, and their works at Babylon and Teredon intimate some attention to the advantages of a naval power; still the Indians⁵, Persians, and Egyptians, seem to have been restrained by prejudices, either political or religious, from distant navigation; and though Persia and Egypt manifestly reaped the profits of an Oriental commerce which passed through these countries to others more distant, either on the north or on the west, still the common centre was Arabia⁶: the Arabians had no obstructions either from manners, laws, habits, or religion; and as there is every proof that is requisite, to shew that the Tyrians and Sidonians were the first merchants who introduced the produce of India to all the nations which encircled the Mediterranean, so is there the strongest evidence to prove, that the Tyrians⁷ obtained all these commodities from Arabia.

⁵ The religion of India forbids the natives to pass the Attock: it is the *forbidden* river. And if their religion was the same formerly as it is now, they could not go to sea; for even those who navigate the rivers must always eat on land.—The Persians, if their religion was that of Zerdusht, could not go to sea; for the Guebres, who build the finest ships in the world at Bombay, must never navigate them. The Egyptians did not only abhor the sea themselves, but all those likewise that used it. Gosselin Recherches, tom. ii. p. 96. Diod. lib. i. p. 78. See also Marco Polo, lib. iii. c. 20. Ed. Ramusio: quello che bee vino

non si riceve per testimonio, ne quello che naviga per mare.

Linschotin in Purchas, vol. iii. p. 1765. writes, "the Abexiins [Abyssinians] and Arabians, such as are free, do serve in all India for saylers or seafaring-men."

⁶ Plin. lib. vi. c. 28. Arabes. in universum gentes ditissimæ, ut apud quas maxime opes Romanorum Parthorumque subsidant, vendentibus quæ a mari aut sylvis capiant, nihil invicem redimentibus.

⁷ See Herodotus, who says the name of Cinnamon is from the Phenicians.

PETRA. KINGDOM OF IDUMĒA. NABATHĒANS.

III. BUT if Arabia was the centre of this commerce, Petra⁸ was the point to which all the Arabians tended from the three sides of their vast peninsula⁹: here, upon opening the oldest history in the world, we find the Ishmaelites, from Gilead, conducting a caravan of camels loaded with the spices¹⁰ of India, the balsam and myrrh of Hadramaut; and in the regular course of their traffic, proceeding to Egypt¹¹ for a market. The date of this transaction is more than seventeen centuries prior to the Christian era; and, notwithstanding its antiquity, it has all the genuine features of a caravan crossing the Desert at the present hour.

It is this consideration, above all others, which makes the Petra we have arrived at with the Periplus, an object the most worthy of our curiosity; for Petra is the capital of Edom or Seir, the IdumĒa or Arabia PetrĒa of the Greeks, the NabatĒa, considered both by geographers, historians, and poets, as the source of all the precious commodities of the east. And as IdumĒa is derived from Edom, or

⁸ Agatharchides Hudf. p. 57. Πέτραν καὶ τὴν Παλαιστίνην εἰς ἣν Γεραῖοι καὶ Μινῆες, καὶ πάντες οἱ πλησίον ἔχοντες τὰς ἀκρίσεις Ἀραβες, τὸν τε Λιβανόν, ὡς λόγος, καὶ τὰ φορτία τὰ πρὸς ἰουδαίαν ἐσθίοντά, ἀπὸ τῆς χώρας τῆς αὐτοῦ κατὰγουσιν. And Pliny, lib. vi. c. 28.: huc convenit bivium eorum qui Syriæ Palmyram petiere et eorum qui ab Gaza veniunt. And again: in Pafitigris ripa, Forath, in quod a Petra conveniunt.

⁹ The sea coast of Arabia is more than 3,500 miles.

¹⁰ In the thirteenth chapter of Exodus the spices of India, and the gums and odours of

Arabia, are mentioned by name; and it is not assuming too much to suppose, that the spices here mentioned are from India also: the term used is נֶכֶת, Necoth, which signifies any thing bruised or brayed in a mortar, as spices are reduced in order to use them with our food. צֶרֶף, Tseri, is a gum or balsam; and

לֹט, Lot, is the same, evidently marking the produce of Arabia. See Parkhurst in voce. See also Gen. xxv. 18.; and Cumberland's Origin of Nations, p. 210.

¹¹ Genesis, xxxvii. 25.

Efau the son of Isaac, so is Nabatêa deduced from Nebaioth the son of Ishmael; and Efau married Bashemath¹², the sister of Nebaioth. Little respect as has been paid to the genealogies¹³ of the scripture by some writers of the present day, it is still to be considered that the Bible may be tried by the rule of history as well as inspiration, and that the traditions of the Arabians are in harmony with the writings of Moses; for they as universally acknowledge¹⁴ Joktan, the fourth from Shem, as the origin of those tribes which occupied Sabêa and Hadramaut, that is, Yemen and the incense country; and Ishmael the son of Abraham, as the father of the families that settled in Hejaz, which is Arabia Deserta; as they do Edom for the ancestor of the Idumêans, who occupied Arabia Petrêa. These form the three¹⁵ general divisions of this vast country and nation, as extraordinary for the preservation of its manners, as its liberty; and which is continuing at this day to fulfil one of those prophecies which assure us of the truth of that History in which these families are recorded.

The name of this capital, in all the various languages in which it occurs, implies a rock¹⁶, and as such it is described in the Scriptures, in Strabo, and Al Edrissi; but it is a rock supplied with an abundant

¹² Gen. xxxvi. 3.

¹³ See Gibbon, vol. v. p. 179. note 21. and p. 197.

¹⁴ Gen. x. 26, 27. the son of Joctan. Hazarmaveth is equivalent to Hadzrmauth, or Hadramaut.

¹⁵ The Arabians divide their country into five, taking in Oman and the eastern side, under the name of Aronda or Jemama, and making a distinct part of the Tehamaor country

below the mountains. See Reiske Ind. Geog. in Alfildam.

¹⁶ Thomud gives a name to the Thamydeni of the Greeks in this neighbourhood, and is sufficiently acknowledged by the Oriental writers. The springs of Thomud might give rise to a river, which Pliny mentions, lib. vi. c. 18. and which d'Anville carries into the Lake Asphaltis.

spring of water, styled 'Thomud' by the Nubian, which gives it a distinction from all the rocks in its vicinity, and constitutes it a fortress of importance in the Desert. Strabo did not visit it himself, but describes it from the account of his friend Athenodôrus the philosopher. Athenodôrus spoke with great admiration of the people, their civilized manners and quiet disposition. The government was regal; but it was the custom for the sovereign to name a minister¹⁸, who had the title of the king's brother, in whose hands the whole of the power¹⁹ seemed chiefly to reside: such a minister (or vizir, as we should now call him) was Syllêus in the reign of Obodas and Aretas, who makes so conspicuous a figure in the history of Josephus, and who was tried and executed at Rome, according to Strabo, for his treachery to Elius Gallus.

¹⁷ The names are,

Rekam; Numbers, xxxi. 8. Joshua, xiii. 21.
Bochart. Canaan, lib. i. c. 44.

Rakim.

Rokom.

Rekemè.

A. Rekemè; quæ Græcis vocatur Petra. Josephus.

Arkè. Josephus.

Sela; from סֵלָע, a rock. Heb.

Hagar, a rock. Arab^{ck} Herbelot in voce,
חר, Har. Heb.

Arak, Karak, Krak de Montreal. Crusaders.

Petra, a Rock. Greek.

The Rock, pre eminently. Jerem xlix. 16.
See Blaney in loco.

But see Schultens (Index Geog. ad vitam Saladini), where he informs us that Hagar and Krak are not Petra, though in the neigh-

bourhood. Petra, he says, is Errakym, the same as the Rekeme or Rakim of Josephus. See Voc. Caraccha, Errakimum, Sjaubech, ibid. The mistake of one for the other he imputes to Bernard. Thesaurarius de Acquisit. Terræ Sanctæ, xxii. 2. 5. It is in lat. 31° 30' 0" Abilfeda. Which, if true, makes it no more than 87 miles from Aila, which he places in 29° 8' 0"; but Schultens says, Petra is in 28° 30' 0" from Abilfeda; if so, it is only 5 Roman miles from Aila. Carak is mentioned as well as Hagjr, by Abilfeda, Reiske, p. 43, where the Moslems were defeated in their first conflict with the Romans.

In the route from Gaza to Karak there are still the ruins of thirty villages, and remains of buildings, pillars, &c. indicating the former wealth of the country. Volney Syria, p. 212.

¹⁸ ἐντις, as literally a vizir as it can be rendered.

¹⁹ Josephus Antiq. xvi. p. 734.

Moses

Moses was forbidden to molest the sons of Edom in his passage through the wilderness; but that there was then a considerable commerce in the country we have reason to conclude, from the conquest of Midian²⁰, in its neighbourhood, by Gideon²¹, not many years after; when gold is described as abundant among the Midianites, and their wealth in camels a proof of the traffic by which they subsisted. In the reign of David, Hadad²² the prince of Edom was driven out, and Hebrew garrisons were placed in Elath and Ezion Geber, where Prideaux supposes that David commenced the trade of Ophir²³, which was afterwards carried to its height by Solomon.

And here, perhaps, it will be expected that the trade to Ophir should be examined, which has so much divided the opinions of mankind, from the time of Jerom to the present moment; but as I have nothing decisive to offer upon the question, I shall only state my reasons for acceding to the opinion of Prideaux and Gossellin, who confine it to Sabêa.

For I neither carry Ophir to Peru with Arias Montanus, or to Malacca with Josephus, or to Ceylon with Bochart, because I consider all these suppositions as founded upon no better evidence than the finding of gold in those countries; but our choice must lie be-

²⁰ Midian is the country of Jethro, on the Elanitic Gulf, called Madien by the Arabs, and Jethro, Scioaib. Al Edrisi, p. 109.

²¹ Judges, viii. 24. the people are called Ishmaelites. Gideon for his reward demanded the ear-rings of the men, and the chains on the camels' necks: the decoration bespeaks the value of the animal.

²² Hadad fled into Egypt for protection, a proof of the connection between the two

countries; and his marriage with Pharaoh's daughter proves his rank and estimation. 1 Kings, xi. 19. He attempted to recover Edom in the latter end of Solomon's reign.

²³ David had treasured up three thousand talents of the gold of Ophir. 1 Chron. xxix. 4.; but this does not prove the voyage, for the gold of Ophir was a common expression. See Job, xxii. 24. xxvi. 16. Psalms, &c. &c. lxv. 9. See Prideaux's Connections, p. 4.

tween the coast of Africa and Sabéa. Montesquieu, Bruce, and d'Anville, have determined in favour of Africa, principally, I think, because gold has always been an export from that country, while the precious metals were usually carried to Sabéa, to purchase the commodities of the east. I allow great weight to this argument; and I admit the probability of d'Anville's supposition, that the Ophir of Arabia might naturally produce an Ophir on the coast of Africa, which should, by an easy etymology, pass into Sophir, Sophar, Sopharah el Zange, or Sophala: but I by no means subscribe to the system of Bruce, which he has displayed with so much learning and ingenuity; and which he thinks established by the discovery of an anomalous monsoon prevailing from Sofala to Melinda. A sensible²⁴ writer has denied the existence of any such irregularity, and appeals to Halley²⁵, Parkinson, and Forrest; and if the irregular monsoon is annihilated, nothing remains in favour of his hypothesis but the

²⁴ In the Gentleman's Magazine, 1793, p. 222.

²⁵ Halley's account is to be found in the Philosophical Transactions, 1686, p. 153; in which he says, that in the south-west monsoon the winds are generally more southerly on the African side, and more westerly on the Indian. So far he is directly adverse to Bruce's system; but he adds, that near the African coast, between it and the Island of Madagascar, and thence to the northward as far as the line, from April to October there is found a constant fresh S.S.W. wind, which, as you go more northerly, becomes still more westerly. What winds blow in these seas during the other half year, from October to April, is not easy to learn, because navigators always return from India without Madagascar: *the only ac-*

count obtained, was, that the winds are much easterly hereabouts, and as often to the north of the true east, as to the southward of it.

The last sentence is all that Bruce has to build his anomalous monsoon on; and it does not prove an anomalous monsoon, but a fluctuation in the regular one.

"The west winds begin the first of April at Socotora; the eastern monsoon the 13th of October, continues till April, then fair weather till May. Neither have they more than two monsoons yearly; west monsoon blows at Socotora all south; east monsoon, all north. After the 25th of September ships cannot depart from the Red Sea eastward." Purchas, vol. ii. 193. Keeling's Voyage.

duration.

duration" of the voyage. The duration it should seem easy to account for, upon a different principle; for the navigators were Phenicians, and we learn from Homer" their method of conducting business in a foreign port. They had no factors to whom they could consign a cargo in the gross, or who could furnish them, on the emergence, with a lading in return; but they anchored in a harbour, where they were their own brokers, and disposed of their cargoes by retail. This might detain them for a twelvemonth, as it did in the instance to which I allude; and if the Phenicians traded on the Eastern Ocean, as they did in the Mediterranean, we may from this cause assign any duration to the voyage which the history requires.

But my reasons for adhering to the opinions of Prideaux and Gossellin are, first, that Ophir is mentioned" with Havilah and Jobab, all three sons of Joktan; and all of them, as well as Joktan, have their residence in Arabia Felix, most probably beyond the Straits; and secondly, because the voyage to Ophir seems in consequence of the visit of the queen of Sheba to Jerusalem: it is immediately subjoined" to it in the same chapter; and Sheba is Sabêa³⁰, or Arabia Felix, as we learn with certainty from Ezekiel³¹. It is particularly added,

³⁰ Pliny, on a much shorter distance, that is, from Azania to Ocila or Okêlis, makes the voyage five years. Lib. xii. 19.

³¹ Odyssey, v. 454.

³² Genesis, x. 29.

³³ 1 Kings, x. 10, 11. See Gossellin Recherches, tom. ii. p. 121. and Volney, Syria, p. 170.

³⁴ Cosmas Indicopleustes supposes the queen of Sheba to be the queen of the Homerites; that is, in his age, the Homerites were mas-

ters of Sabêa. He gives a very rational account of the trade of these Homerites, or Sabêans rather, with Africa, for the spices which the queen of Sheba brought; their intercourse with the Red Sea, Persia and India, and Zingium or Zanguebar; with the gold obtained thence by the Abyssinians, and brought into Arabia, as it is to this day. See Cosmas in Melch. Thevenot, vol. i. p. 7.

³⁵ Ezek. xxvii. 22. "The merchants of Sheba and Raamah, they were thy merchants:"

added, that the royal visitant brought a present of spices: "there were no such spices as the queen ³² of Sheba gave to Solomon."

I do not wish to conceal an objection to this supposition; which is, though they are taxed, that spices are never mentioned as an article of importation from Ophir. The produce of the voyage is gold, silver, ivory, almug-trees ³³, apes, peacocks, and precious stones. But as on the one hand this failure in the invoice will argue much more forcibly against any of the more distant Ophirs which have been assumed; so on the other, it is no proof against Sabêa, that several of these articles are not native; for these, and many more than are enumerated, would certainly be found in Sabêa, if the Arabians were navigators in that age, as we have every reason to suppose they were.

The evidence that Solomon obtained gold from Arabia is express; and as our early authorities notice gold as a native produce among the Debæ ³⁴ of Hejaz, so may we conclude that the gold of Africa always found its way into Yemen through Abyssinia, as it does at this day. The import of gold, therefore, we carry up as high as the reign of Solomon, and bring it down to the time of Ptolemy Philadelphus, king of Egypt; for we learn, from the testimony of Ezekiel and Aristeas ³⁵, that spices, precious stones,

and

"chants: they occupied in thy fairs [marts] with chief of all spices, and with all precious stones and gold." In this passage the introduction of gold from Arabia is specific, and the three articles are the same as they continued to be in the reign of Ptolemy Philadelphus. See Aristeas.

³² 2 Chron. ix. 9. from Gossellin.

³³ Almug and Algum are both read in scripture; and Shaw, p. 422. cites the opinion of Hiller, in his Hierophyticon, that

אגל גומי, Agal Gummim, is, liquidorum guttæ gum. But in scripture the wood does not appear to be brought for its gum, but for use; and musical instruments were made of it, 1 Kings, x. 12., as Shaw observes, who supposes it to be cypress, still used by the Italians for that purpose. See 2 Chron. ix. 21.

³⁴ Deb is said to signify gold, in Arabick. All the kings of Arabia brought gold and silver to Solomon. 2 Chron. ix. 14.

³⁵ Πολύ δὲ πλῆθος καὶ τῶν ἀρωμάτων καὶ λίθων πολυτελῶν.

and gold, were brought by the Arabians³⁶ into Judea. I do not wish to lay more stress upon this testimony than it will bear; but it is not unreasonable to suppose, that the circumstances of this commerce were similar, in an early age, to those of a later period. The removal of these difficulties will shew the inducement which persuades me to join in opinion with Prideaux and Gosselin, upon a question that has been more embarrassed by hypothesis, and distracted by erudition, than any other which concerns the commerce of the ancients.

The participation of Hiram in this concern is founded upon necessity as well as policy; for if Solomon was master of Idumæa, the Tyrians were cut off from Arabia, unless they united with the possessors; and whatever profit Solomon might derive from the import, the whole of the export on the Mediterranean would be to the exclusive emolument of Tyre. Here the Greeks found the commodities of the east, or received them in their own ports from the hands of the Phenicians; for they were not allowed to enter the harbours of Egypt till the reign of Psammetichus; and the very

πολυτελῶν καὶ ΧΡΥΣΟΥ παρακομίζεται διὰ τῶν Ἀράβων εἰς τὸν τόπον. Aristeas, p. 40. Ed. Wells, Oxon. 1692. If Aristeas is not good evidence for the Septuagint version, his testimony may be taken for the transactions of the age in which he lived. I imagine this to be the same commerce as is noticed by Strabo (lib. xvi. p. 81.), where we learn that the Tyrians traded through Rhinocolûra to Petra and Leukè Komè. Harris (vol. i. p. 379.) supposes the Tyrians to be masters of Rhinocolûra; which knowledge he seems to draw from Prideaux (Con. part. ii. p. 56. & part. i. p. 7.); but if it depends on the passage of

Strabo, it does not follow that the Tyrians were masters of the place, however their trade passed through it. But Rhinocolûra, by its situation on the limits of Phenicia and Egypt, was certainly adapted in a peculiar manner for keeping open the communication. Prideaux's account of Idumæa and this trade (part i. p. 17.) is highly accurate and comprehensive; but we have no date of the fact recorded by Strabo.

³ διὰ τῶν Ἀράβων, perhaps, through the country of the Arabians. Agatharchides is also an evidence in favour of the exportation of gold from Arabia: ἔτι πολὺ χρυσὸν τὴν Πτολεμαίου Συρίαν πεποιήκασιν, p. 64.

names

names of the articles they obtained were derived from the Phenicians, as we are informed by Heródotus³⁷.

The possession of Idumêa by the kings of Judah continued little more than an hundred years, to the reign of Jehoram, when the Idumêans revolted³⁸, and were not again subdued till after an interval of eighty years, in the reign of Uzziah³⁹. Seventy years after this, the Syrians⁴⁰ seized upon Elath; and here terminates the trade of Ophir, in regard to Israel; and probably in regard to Tyre, with the capture of that city, about an hundred and sixty years later, by Nebuchadnezzar.

Whether Nebuchadnezzar over-ran Idumêa, is a question that history⁴¹ has not resolved; or whether he besieged Tyre with any view of opening a communication with the Mediterranean, is equally unknown; but that he had some plan of commerce on the gulph of Persia in contemplation, we may judge from a curious fragment of Abydenus⁴², which informs us, that he raised a mound or wall to confine

³⁷ Τὸ δὲ δὴ κιννάμωμον ἐστὶ τῶν δυναστοτέρων συλλέγειν· ὅκω μὲν γὰρ γίνεται, καὶ ἥτις μιν γῆ ἢ πρέφασά ἐστι, εἴη ἔχουσι ὑπεῖν. ὅριδας δὲ λέγουσι μεγάλας φορεῖν ταῦτα τὰ κάρφεια, τὰ ἡμεῖς ἀπὸ Φοινίκων μαδόντες κιννάμωμον καλέομεν, lib. iii. p. 253.

"The cinnamon is still more extraordinary; for where it grows, or what country produces it, they cannot say; only the report is, that birds bring the little rolls of the bark which we, from the Phenicians, call "cinnamon." Heródotus supposes it, indeed, to come from the country where Dionýsus, or Bacchus, was born, that is, India; though there is a fable that he was born in Sabêa; but its progress is clearly marked through

Arabia to Tyre, and thence into Greece with its Tyrian name.

³⁸ 2 Kings, viii. 22.

³⁹ 2 Kings, xiv. 22.

⁴⁰ 2 Kings, xvi. 6.

⁴¹ It is highly probable, from the woe of Edom in the 49th chapter of Jeremiah.

⁴² Scaliger Emend. Temp. Fragm. p. 13.

Ναβουχοδονόσορος τὸν τε Ἀρμακάλην ποταμὸν ἐξήγαγεν ἰόντα κέρας Εὐφράτην ἐπιτείχισι δὲ καὶ τῆς Εὐρυδρῆς θαλάσσης τὴν ἐπίκλυσιν. καὶ Τερηδόνα πόλιν ἔκτισε κατὰ τὰς Ἀράβων ἐσβολάς.

There seems also to be another canal mentioned by the name of Akrakanus, and a basin above the city of the Sipparerians; and that these were all formed with a commercial view,

confine the waters at the mouth of the Tigris⁴¹; that he built the city of Terédon, to stop the incursions of the Arabs; and opened the Naharmalca in Babylonia, which unites the Tigris with the Euphrates. These transactions may lead us to suppose that this conqueror would turn his attention to Idumêa, and the gulph of Arabia, as well as to the Persian Gulph and Tyre; and if he did, the conquest would have been easy, either when he was in Judêa, or during his march into Egypt.

From this time till the death of Alexander we have no account of Idumêa; but soon after that event, we meet with two expeditions of Antigonus directed against Petra; one under Athenêus⁴², and another by his son Demétrius. Both had an unfortunate termination; but the country was still harassed by the rival sovereigns of Syria and Egypt, experiencing the same fate as Judêa, from its similar situation between both, sometimes subjected, and sometimes free; till there arose a dynasty at Petra, parallel to the Maccabees at Jerusalem; and, like them, partly independent and partly under the influence of the more powerful monarchies on either side.

we may judge by what Arrian says of Terédon: "that it was, when Nearchus arrived there, the mart to which the merchants brought their libanon, and other odoriferous drugs, from Arabia." Arrian, lib. viii. p. 357. *Διδοῦσι, . . . ἵνα λεβανόν τε ἀπὸ τῆς ἑμπορίας γῆς οἱ ἑμποροὶ ἀγνίσκωσι, καὶ τὰ ἄλλα ὅσα θυμωμένα τῇ Ἀραβίᾳ γῇ φέρεται.* This (ἑμπορία γῆς) mercantile country may be supposed equivalent to Grane; and the whole corresponds with the traffic which now exists between Grane and Basra; so constant is the nature of this commerce, from the time of Nebuchadnezzar to the present hour. Have we not therefore a right to assume it in ages antecedent to the

Babylonian monarchy? The continuance of it in after-times we learn from Nearchus, Strabo, &c.; and when Trajan was here, in the Parthian war, he saw a vessel setting sail for India, which excited in his mind the remembrance of Alexander, and a desire of invading India, if he had not been so far advanced in years.—Xiphilinus in Trajano.

⁴¹ It is called the inundation of the Erythrean Sea, and is in reality at Alphadana, in the mouth of the Shat el Arab; in which neighbourhood mounds of this sort are still preserved. See Voyage of Nearchus, p. 436.

⁴² Diodorus, lib. xix. p. 391.

I give

I give the following catalogue of Sovereigns, as well as I have been able to collect it from Josephus, without vouching for the correctness of the extract, or supposing the list to be complete; but such as it is, it will elucidate the commerce which has been proved to exist in this country, and bring the history of it down to the period when the Romans obtained an influence in the government, and the command of the coast; in which state it was found by the Author of the Periplus:

Years before
Christ.

309.
308.

The two expeditions of Antigonus into Idumæa, as nearly as we can state them, were undertaken in the years before our era, 309 and 308.

144.

Malchus⁴⁵—is the first king of Idumæa at Petra, mentioned by Josephus (Antiq. p. 569. Hudson's edⁿ, and the 1 Maccabees, xi. 39.): he is styled Simalcue; and had protected Antiochus VI. restored to the throne of Syria, in 144, by Diódotus, called Tryphon.

126.

A'retas—assisted the city of Gaza besieged by Alexander Sebina, about the year 126. (Josephus Antiq. 595.)

⁴⁵ Mek, Melek, Malik (Arab^{ck}), are all from מלך, a king (Heb^w). In regard to A'retas, see Josephus, lib. xiv. cap. 2. 4. and lib. i. cap. 6. Bel. Jud. where he mentions the conduct of A'retas in regard to Hyrcanus and Aristobulus. See also the Universal Hist. vol. vii. fol. ed. Pliny, vi. 28. Strabo, Diodor. 111. 516. an. 730. Trajan in Arabia, Dio. xviii. 777. And Severus. Dio in Trajano, 948.

Theophanes, p. 124. mentions an Arethas, anno 496. 556. 558, p. 207.

Perhaps every one of these princes was styled Malchus, or Malichus, *the* King: but Darius is a proper name, though Dara is said to signify King, Emperor, or Royal. Si Malcue is some corruption or other of Malchus. A'retas is the Greek form of El Haretsch, as Antipater is of Antipas. El Haretsch occurs often. Mahomet married the daughter of an El Haretsch. Abulfeda. Reiske, p. 43.

Years before
Christ.

125.

O'bodas ⁴⁶—is either the same as A'retas, or his successor within the year: he defeated Alexander about the year 125. (Josephus Antiq. 596.)

63.

A'retas II.—is the king to whom Hyrcanus, of the family of the Maccabees, high priest and king of Judæa, fled, when driven out by Aristobólus. A'retas restored him with an army of 50,000 men, about the time that Pompey came to Damascus in the Mithridatic war, in the year 63. In this reign commenced the connection of the Maccabees with Antipas, or Antipater, the Idumæan, and the father of Herod, which terminated in the destruction of the whole family. (Josephus Antiq. 608, 609.) Pompey took Petra (Dio, Latin copy, p. 23.); and from that Period the kings of Idumæa were, like the other kings in alliance with Rome, dependant, obliged to furnish auxiliaries on demand, and not allowed to assume the sovereignty without permission of the senate, and afterwards of the emperors. The interval between O'bodas and this A'retas I have not been able to fill up.

47.

Malchus II.—must have commenced his reign before the year 47; because in that year Cesar was at Alexandria, and Malchus is mentioned by Hirtius as one of the allied kings to whom Cesar sent for succours. (De Bello Alexandrino, p. 1. Hudson.

⁴⁶ O'bodas is written Obéidas by Strabo, same name as Abudah, familiar to every ear and O'bedas by others. It seems to be the same as an Arabian name.

Years before
Christ.

39.

Periplus, p. 11.) This Malchus⁴⁷ was in Judæa when the Parthians took Jerusalem, and restored Antigonus; at which time Herod fled to Petra. (Josephus Antiq. 644.) The Parthians were defeated by Ventidius in the year 39 (Dion Cassius, Lat. p. 235.); and Malchus was still king in 30 (Josephus Antiq. 648. 677.); and he is styled Malichus by Josephus. (Bel. Jud. 990.)

24.

O'bodas II.—must have commenced his reign before the year 24; because in that year Elius Gallus invaded Arabia, attended by Syllæus, minister of O'bodas and Syllæus, was tried at Rome and executed for his treachery; according to Strabo (p. 783.); but Josephus says, on account of charges brought against him by Herod, whose cause was pleaded by Nicolaus of Damascus. This trial did not take place till the reign of the successor of O'bodas. (Jof. Antiq. 728, et seq.)

12.

A'retas III.—seized the throne on the death of O'bodas, about the year 12, without applying to Rome for the consent of the emperor (Jof. Antiq. 736.); and by that act incurred the displeasure of Augustus, which however he appeased. The trial of Syllæus took place in this reign, who was accused of poisoning O'bodas, and attempting the life of A'retas, among the other charges brought against him. This A'retas, or another of the same name, was on the

⁴⁷ He was fined by Ventidius. Dio, lib. xlviii. 234. Lat. ed.

throne

Years after
Christ.

36.

throne as late as the year 36 after Christ, which is the last year of Tiberius; for Vitellius, proconsul of Syria, was preparing to march into Idumæa, but was stopped by that event. (Jof. Antiq. 728. 736. 755.) It is in this reign we may place the visit of Strabo's friend, Athenodorus, to Petra, who found it, as described above, in a civilized and flourishing state.

Aretas IV.—whether another, or the same as the last, is dubious.

Much disappointment have I felt in not being able to discover any successor to Aretas, in Josephus or Dion Cassius; because I have great reason to believe, that in his immediate successor, or in the following reign, we should have found another Malchus, or Malichus, the same who is mentioned by the Periplûs as the sovereign of Petræa, when the author frequented the port of Leukè Komè. We learn, however, from this brief account, the commencement of the Roman influence over this government under Pompey, and the continuance of it till the death of Tiberius; and it will hence appear very evident, how a Roman garrison was introduced into Leukè Komè, and the revenues of the port diverted from the possession of the native kings into the Roman treasury. The immediate date of that transaction I cannot fix; for Elius Gallus appears to have had little knowledge of Leukè Komè till he was conducted⁴⁸ thither by Syllêus; and, as he returned from

⁴⁸ But he staid there all the latter part of so that he might well leave a garrison there the summer, and the winter, Strab. xvii. p. 781. at his departure.

another port, he had not the opportunity of leaving a garrison at this harbour before he embarked. This makes it highly probable that the introduction of this garrison was in the reign of Claudius, who evidently collected a revenue from the coast of Arabia, as we learn from the circumstances related by Plócamus, and might well commence his system from the head of the gulph.

It may be here observed, that the princes of this dynasty at Petra are almost universally called kings of the Nabatéans by the historians; and the prevalence of this tribe of Nebaioth over the Iduméans is placed by Prideaux⁴⁹, with his usual accuracy, during the Babylonish captivity, agreeing admirably with the existence of their sovereignty in the reign of Antigonus, and countenanced by Strabo⁵⁰, who mentions the expulsion of the Iduméans. If this, therefore, be the origin of the dynasty, its termination is in the reign of Trajan, when Petrêa was reduced into the form of a Roman province⁵¹ by Palma⁵², his lieutenant⁵³. Still, under the

⁴⁹ Prideaux, Con. vol. i. p. 9.; vol. ii. p. 155.

⁵⁰ Strabo, lib. xvi. p. 760.

⁵¹ Under the name of Palæstina Tertia; there is a coin of Adrian's.

⁵² See Xiphilinus Ed. Basil. p. 553. in Trajano, who mentions likewise, p. 557. that Palma was afterwards put to death by Adrian.

⁵³ It is evident that the Roman power was never very firm in this province, at least under the latter empire; for Justinian was obliged to subdue it after a considerable lapse of independence; and Procopius, Cedréus, and Théophanes, constantly notice an A'rethas, either at Petra or in Iduméa, who was considered as an Arab sovereign in the Roman interest, in opposition to an Al Mondar under the protection of Persia. The seat of this Al Mondar was at Hira, on the Bahr Nedjeff, a

lake near the Euphrates [see d'Anville's Map of the Euphr. and Tigris]; and these Arabian powers seem usually to have been set in motion by the Romans and Persians, whenever a war was about to commence between the two empires. See Théophanes Byz. Hist. p. 496. Univers. Hist. p. 272. fol. ed. which says, A'retas is Al Hareth. O'bodas, Abd Wad. Théophanes expressly mentions the defeat of an A'rethas, and the restoration of the tribute, or custom, on India goods, anno 27, Anastasii, that is, the year 488. See also the year 556, p. 203. where an A'rethas, the sheik appointed by the Romans, complains of the Persian sheik Abar, son of Al Mondar; another A'rethas, was with Belisarius in Isauria. Procop. Hist. Arcan. p. 8.

latter empire, we meet with an Aretas in Procópius; and possibly, according to the fluctuating power of the empire, it was at times subject, and again independent, according to the change of circumstances, till it was finally reduced by Mahomed in person. This is a fact so singular that, as I shall make it the termination of my inquiries, the reader will pardon a digression that is foreign to the subject. For Mahomed marched against this country with an army of thirty thousand men, of which one-third was cavalry: he took Hagjr⁵⁴, the capital of the Tschamudites⁵⁵; and John, the prefect of Aila⁵⁶, submitted to pay a tribute of three hundred pieces of gold⁵⁷. Now if Hagjr be not the Hagar of the Hebrews, the Petra of the Greeks, it is at least a hill fort in the same country, and maintained the same rank as the seat of government. Aila is the Elath of the scriptures, still at that period under the power of Constantinople (if we may judge from the name of John the governor), so late as the reign of Heraclius. This expedition is the more remarkable, as it is the first successful attempt of the Mahomedans beyond the limits of the Hejaz⁵⁸, and the prelude to the conquest of Syria

by

⁵⁴ See note 17.

⁵⁵ The Thamydeni of the Greeks.

⁵⁶ Abulfeda Reiske, p. 52.

⁵⁷ Trecentos nummos aureos. If it is the Roman aureus, the value varied, according to Arbuthnot, from 1*l.* 4*s.* 3½*d.* to 16*s.* 1½*d.*, which admits a medium of twenty shillings. Aila was no longer the port of the trade of Ophir.

⁵⁸ See Gibbon, vol. v. p. 245. The superstition of a bigot never went to greater excess in defence of his faith, than the fanaticism of philosophy has carried Gibbon, in softening the vices, cruelty, hypocrisy, and imposture,

of Mahomet, or in amplifying his courage, his eloquence, and abilities as a statesman or a general; but at the same time, notwithstanding this defect (which is radical), and notwithstanding the detestable comparisons which he insinuates, the extent of his research, the use, selection, and arrangement of his materials, form one of the most brilliant specimens of his talents as an historian. In regard to this last transaction of Mahomet, I apprehend Gibbon is mistaken: he says, the prophet received the submission of the tribes from the Euphrates to the Red Sea; but according to Abulfeda, he subdued Hagjr and Aila only;

and

by the immediate successor of the prophet. This expedition, therefore, it was, which opened the way to all their succeeding victories over the declining power of the Romans in the east.

This account of Arabia Petræa, from the time of the Patriarchs to the rise of the Mahomedan power, is essentially connected with the object of the present work; because the whole commerce of the east originally passed through this province to Phenicia, Tyre, and Egypt; for the Minæans, who were the conductors of the caravans from Sabæa to Hadramaut, and the Gerrhæans from the gulph of Persia, both pointed to this centre; and notwithstanding that the caravans decreased in proportion to the advance of navigation, still Petra was a capital of consideration in the age of the Periplus: there was still a proportion of the trade passed from Leukè Komè to this city, and its princes maintained a rank similar to that of Herod in Judæa. In all the subsequent fluctuations of power, some commercial transactions³⁹ are discoverable in this province; and if Egypt should ever be under a civilized government again, Petræa would be no longer a desert.

Whether the Idumæans had been navigators previous to the time of Solomon and Hiram; and whether those princes occupied the ports of Idumæa in order to turn this navigation to their own advantage, or were the first to venture on it themselves, must be a matter of conjecture; but that the Arabians of this province, or more probably of those farther to the south, were the first navigators whom history mentions, upon the Indian Ocean, is evident: first,

and if the tribute was no more than 300 aurei, the conquest was of importance only as it opened the road to Syria. See Abulfeda, Reiske, Lipsiæ, 1754, p. 52.

³⁹ Γάζην γόμην τῆς ἐρήμου κατὰ τὸ Σιναι
ἔπος πλεσίαν σφόδρα. (Cedrenus, 429.
Gaza, the key of the desert of Sina, a
country very rich.

from

from Nearchus⁶⁰, who found the traces of it on the coast of Gadorfia; and, secondly, from Agatharchides, who distinctly mentions the great ships in the ports of Sabæa which traded to India; and if the works of Eratosthenes⁶¹ were extant, we should learn how the Greeks obtained their knowledge to the east of Cape Comorin, before any fleets had sailed from Egypt beyond the Straits of Bab-el-mandeb.

But whatever previous sources of information we might trace, it is from the *Periplus* itself that we can discover no less than six different courses of the ancients in these seas, all prior to the age of the author, or practised by different navigators at the time he wrote.

IV. VOYAGES DISTINGUISHABLE IN THE PERIPLUS.

I. THE first is the voyage, described in the two previous books, down the coast of Africa to Rhaptum; shewing that the Arabians had settlements in that country, before it was visited by the Greeks from Egypt.

⁶⁰ He found Arabick names of places, a pilot to direct him, and vessels of the country, at Apolloni, in the gulph of Persia. See Voyage of Nearchus, p. 351.

⁶¹ Marcian of Heraclea informs us, that Eratosthenes took the whole work of Timosthenes, preface and all, as it stood, and in the very same words: this confirms an opinion that I have already ventured to give, that Eratosthenes was more of a geometrician than a geographer. Marcian, indeed, does not speak very highly of Timosthenes, and yet, by this account, it should seem that Eratosthenes's knowledge of the Thinx was from

Timosthenes, who had commanded the fleet of Ptolemy Philadelphus on the Indian Ocean, and had gone farther down the coast of Africa than any other Greek of his age. See Marcian in Hudon, p. 64: he calls him Ἀρχιναυάρχης καὶ διὰ τὴν Ἰνδοῦ. Strabo styles him Ναυάρχος. See Pliny, Hardouin, p. 132. Marcian mentions likewise Sotander, a pilot, who wrote on India. Still there is an obscure knowledge of the Thinx, and the Golden Chersonese, prior to all these geographers, as appears from the *Treatise de Mundo* in Aristotle, if that be a genuine work of the philosopher.

II. Secondly,

II.⁶² Secondly, we are informed of the two distinct courses within the Gulph: one from Myos Hormus, across the head of the gulph to Leukè Komè, and thence down the Arabian coast to Mopza; and another, from Berenikè to the same port direct.

III.⁶³ Next to this, we collect a voyage from the mouth of the Straits along the southern coast of Arabia into the gulph of Persia, extending afterwards to Bahrein, El Katif, and Oboleh, in the Shat-el-Arab.

IV.⁶⁴ Then follows a passage from the Straits to India by three different routes: the first, by adhering to the coasts of Arabia, Karmània, Gadrófia, and Scindi, to the gulph of Cambay; the second, from Cape Fartaque, or from Ras-el-had, on the Arabian side; and the third, from Cape Gardéfán, on the African side, both across the ocean by the monsoon to Muzírís, on the coast of Malabar.

V.⁶⁵ After this, we must allow of a similar voyage performed by the Indians to Arabia, or, by the Arabians to India, previous to the performance of it by the Greeks; because the Greeks, as late as the reign of Philométer, met this commerce in Sabêa.

VI.⁶⁶ And lastly, we obtain an incidental knowledge of a voyage which confirms all that has been advanced concerning the early commerce of the Arabians, previous, in all appearance, to every account we receive from the Greeks, and conducted, certainly, by the monsoon, long before Hippalus introduced the knowledge of that wind to the Roman world.

⁶² Periplús, pp. 12. 14.

⁶³ Periplús, pp. 19, 20.

⁶⁴ Periplús, pp. 20, 21, 22, 32. 33.

⁶⁵ Agatharchides apud Hudson, pp. 64. 66.

⁶⁶ Periplús, pp. 8, 9.

It is the voyage between the opposite coasts of India and Africa, connected certainly with the commerce of Arabia, but still capable of being considered in the abstract, and proving, in my opinion at least, the possible existence of this intercourse in ages antecedent to all that history can reach. If it could be believed that the natives of India had been navigators in any age, we might more readily admit their claim in this instance than in any other; for the author mentions, that the imports into Africa are the production of the interior, from Barugáza and Ariakè; that is, from the coast of Cambay and Concan: and the articles specified confirm the truth of his assertion; for they are, rice⁶⁷, ghee, oil of sesamum, cotton, muslins, sashes, and sugar: these commodities, he adds, are brought sometimes in vessels destined expressly for the coast of Africa; at other times, they are only a part of the cargo out of vessels which are proceeding to another port. Thus we have manifestly two methods of conducting this commerce, perfectly distinct: one, to Africa direct; and another, by touching on this coast, with a final destination to Arabia. This is precisely the same trade as the Portuguese found at Melinda and Quiloa, and the same connection with Arabia; and this is the reason that the Greeks found cinnamon, and the produce of India, on this coast, when they first ventured to pass the Straits⁶⁸, in order to seek a cheaper market than Sabêa.

⁶⁷ Periplus, p. 9.

σῖτος, Wheat.

ῥυζα, Rice.

βούτυρον, Butter, i. e. Ghee.

ἔλαιον σησαμίνον, Oil of Sesamum.

ὀθόνιον, ἡ μοναχὴ, Cotton Cloths, Muslin.

ἡ σαγματοθήκη, Cotton in the Wool, for stuffing Beds, &c.

περικείμενα, Sashes.

μέλι τὸ καλαίμιον,

τὸ λεγόμενον σάκχαρι, } Sugar.

⁶⁸ The passing of these straits is ascribed to Sesostris by Herodotus and Diodorus, which, if the whole history of Sesostris be a fable, is still a proof that Herodotus knew some object was to be obtained by the attempt. He adds

(lib.

Sabêa. Still it must be doubted, whether this commerce was conducted by natives of India, or Arabians; for Arabians there were on the coast of Malabar, and in such numbers at Ceylon, that Pliny⁶⁹ represents them as masters of the coast, like the Europeans

(lib. ii. p. 109.), that Sesostris advanced into the Erythræan Sea till he was stopped by shoals; a proof to me, that he entered the Bay Avalites, and went no farther. But Diodorus (lib. i. p. 64.) carries him by sea to India, and by land, to the eastern coast of China: so little trouble does it cost an historian to convey his hero to the world's end, when he is not embarrassed with circumstances. If any date could be affixed to the reign of Sesostris, if his conquests could be reconciled with the history of the nations he is said to have conquered, I should think it highly probable that he knew of an Indian commerce in Arabia, or Africa, and wished to partake of it; and even as the fact stands, it appears as if Herodotus was fully justified in supposing, that some attempts had been made by the Egyptians to enter the Erythræan Sea. But the Egyptians seem to have attributed all their wonders to Sesostris, as the Greeks did theirs to Hercules; and it is as difficult to reconcile the date of his reign to reason, as the chronology of the Egyptians to scripture. The truly learned and most excellent translator of Herodotus professes his belief in scripture, and deprecates all conclusions against the scriptures which may be drawn from his chronology: it is a protest of importance, because his first date makes the establishment of Egypt 13,566 years, and the building of Memphis 8,352 years prior to the creation, according to the Mosaic account; and it is not without a sense of the contradiction that we read the following words: "Il est donc constant

que notre historien a été le fidèle interprète des prêtres Egyptiens, & qu'il n'y avoit pas la plus légère incohérence dans leur récit." Chronol. Herod. p. 222. 1st edit. But M. Larcher will not now be averse to see these priests convicted of an incoherence, which is, an interval of near eleven thousand years between the building of the Temple of Ptha by Menes, and the adding a propylæum to it by Moeris. This is about a duplicate of the absurdity which would strike the mind of an Englishman, if he were told that the dome of St. Paul's was built by Adam, and the portico added by Q. Annes.

Since the time that these observations were made, we have another edition of Herodotus by the same excellent translator, who, in the 76th year of his age, repeats his belief in the scriptures, and recalls every thing in his works that may seem of a contrary tendency to the history they contain. I rejoice in the addition of such a name to the catalogue of believers; I admire the fortitude that inspired the profession, and I trust that the example will be efficacious in recalling others to the truth.

⁶⁹ Pliny, lib. vi. c. 22. Regi, cultum liberi patris, cæteris, Arabum; that is, the king retained the native worship of the Indian Bacchus, above the Ghauts; while the inhabitants on the coast were Arabians, or had embraced the superstition of the Arabians.

The Portuguese made a Christian king of Candy; but the Dutch and English have been less zealous for their faith than the Arabians, either when Idolators or Mahometans.

of

of the present day, who have confined the native sovereigns to the country above the Ghauts, and have possessed themselves of the level towards the sea; such also was their situation, though under the name of Moors, or Mahometans, when the modern Europeans met with them again upon their arrival at Calicut, where their influence over the native government long counteracted all the power of the Portuguese.

These are the reasons which induce a supposition, that the whole of this intercourse, on both sides, was in the hands of the Arabians⁷⁰; but it must be left to the determination of those who have been resident in India, how far the superstition of Braminism descends to the Parias, the lower cast, or those who have lost all cast, so as to permit or forbid their venturing on the ocean. That there was an ulterior commerce⁷¹ beyond Ceylon, is indubitable; for at Ceylon the trade from Malacca and the Golden Chersonese met the merchants from Arabia, Persia, and Egypt. This might possibly have been in the hands of the Malays, or even the Chinese⁷², who seem to have been navigators in all ages as universally as the Arabians, and both might profit by the prejudices which seem to have excluded the Hindoos from a participation in these advantages.

There appears no method of tracing this commerce through the darkness of the middle ages, but by the few scattered intimations to be collected from Cosmas, William⁷³ of Tyre, Sanuto⁷⁴, Renaudot's Arabian Voyagers, and Marco Polo; but their general testimony is

⁷⁰ I find this connection of Arabians with India supported by Pococke, Sir Wm. Jones, and Sir Wm. Ouseley. See Ebn. Haukal, p. 291.

⁷¹ Pliny, when he mentions the embassy from Ceylon.

⁷² Marco Polo, lib. iii. c. i. speaks much of Indian ships, but they seem to be Chinese.

⁷³ See Bergeron Traité sur la Navigation.

in favour of the preceding suppositions, and which, as I have no system to maintain, I should abandon as readily as I have adopted, if ever the weight of evidence should preponderate against them. In the time of Marco Polo, the Arabians had not only increased on the coast of India, but made considerable progress in extending the doctrines of the Coran: he mentions the trade from China⁷⁴ which met the trade from the Red Sea, no longer in Ceylon, but on the coast of Malabar; and though he remarks that the Chinese vessels sometimes penetrated farther, even to Madagascar, yet the central mart is manifestly in Malabar, and apparently at Calicut, where the Portuguese found it upon their first arrival. Here, he says, the ships from Aden obtained their lading from the East, and carried it into the Red Sea for Alexandria, from whence it passed into Europe by means of the Venetians.

THE COMPASS.

V. How these voyages were performed in the seas of India or China, without the compass, is a circumstance so extraordinary, that many writers have rather assigned that instrument to the Chinese, than supposed it possible that such voyages should be performed without it. Highly extraordinary it certainly is, that the Chinese, who now never go beyond the limit of Japan on the east, Malacca on the west, or Java on the south, should have sailed to Madagascar in the thirteenth century; their knowledge must in that age have

⁷⁴ Lib. iii. c. 27. In the 9th century, the age of Renaudot's Arabs, the centre was at Coulam in Travancore. After the establishment of the kingdom of Calicut by Ceramperumal, the trade centred there. M. Polo was in India in the 13th century, 300 years later than Ceramperumal.

been

been proportioned to their adventures; and I would not wish to contest the point with those⁷⁵ who would furnish them with means or instruments to qualify them for the undertaking; but Ramusio⁷⁶ is clearly of opinion, that Marco Polo did not bring this instrument from China; and that he did not know it himself, because he never mentions it. This negative evidence in regard to China, becomes positive, according to Nicolo di Conti, in regard to India; for he sailed aboard a native vessel on the Indian seas, about the year 1420⁷⁷; and he says expressly they had no compass, but sailed by the stars of the southern pole, the elevation of which they had the art of measuring; and that they had also a method of keeping their reckoning by day or night, with their distance from place to place; that is, as we should speak in modern terms, they had a quarter-staff or astrolabe, and log, but no compass.

The date of this voyage, sixty or eighty years previous to the discovery of Gama, makes it highly interesting; and the information is unique, for Nicolo sailed on board an Indian⁷⁸ ship; and that the navigators made use of the south polar stars, is a most extraordinary agreement with the account of Ptolemy; who says, they navigated

⁷⁵ Lord Macartney is fully convinced that the Chinese compass is not derived from the Europeans: his reasons for this may be seen in a paper with which he has furnished me (Appendix, No. I.); and has obligingly permitted me to publish with his name.

⁷⁶ See Dichiarazione sopra M. Polo, Ramusio, vol. ii. p. 17.

⁷⁷ He was absolved by Pope Eugenius IV. in 1444 of apostacy, after having been in India 25 years; so that the date of his voyage, in this instance, may be from 1420 to 1430.

⁷⁸ Il naviganti dell' India si governano colle stelle del polo antartico . . . & non navigano

col Bussulo, ma si reggono secondo che trovano le dette stelle o alte, o basse; et questo fanno con certe lor misure che adoperano, et similmente misurano il cammino che fanno di giorno et di notte, & la distanza che e da un luogo all' altro, et così sempre fanno in che luogo si ritrovano essendo in mare. Ramusio, vol. i. p. 344.

If *similmente* refers to the preceding clause, it means that they kept their reckoning, not by the log, but by the stars, which is, in that case, a knowledge of finding their longitude as well as their latitude by astronomy.

the Indian Ocean in his age by means of the star Canopus, which they called the Horse. I should have been glad to find the mariners on board this ship had been Arabians; but the description of the vessel is characteristically like those which M. Polo sailed in on the Chinese seas, separated into compartments, which the respective merchants on board hired each for himself and his property; and which were distinctly caulked, so as to prevent a leak in one part affecting any other: such vessels are still in use on those seas, but are more properly Chinese or Malay, than Indian.

The testimony of N. di Conti is direct against the use of the compass in the ships of India, but still it is not conclusive against the Chinese; for Vertoman, or Barthema, in his passage from Borneo to Java, in a *ciampan*, or small Chinese vessel, expressly mentions, that the pilot⁷⁹ had a compass. And this testimony is of greater importance, because the date of his voyage from Borneo must be in 1503 or 1504, as he returned to Calicut in 1506, when Almeyda was viceroy. Now 1504 is seven years previous⁸⁰ to the arrival of the Portuguese at Malacca: so that the Chinese could not have had it from the Portuguese; and if the ships of India had it not, they could not have received it through that medium of communication. There is something very strong, likewise, against their receiving it from the Arabs, whom they might have met at Calicut in the fifteenth century; because, if the Arabs then used it, it was in the form they derived it from Europe, and divided into thirty-

⁷⁹ Moderator navis pyxidem, magnetemque, nec non paginam marinam, compluribus lineis distinctam, qua ventorum rationem insinuant, secum, *more nostro* attulerat. Grynæus in Barthema, lib. vi. c. 27. Ramusio, vol. i. p. 168. *More nostro* (I think) refers to the sea card;

but if to the whole, it does not quite prove whether Barthema had marked the difference between 32 and 48 points.

⁸⁰ The Portuguese reached Malacca in 1511. Dalrymple, p. 3. Collections.

two points; whereas the Chinese compass is divided into forty-eight, which seems almost conclusive that theirs was an original instrument, and not derived from Europe.

WEALTH OF ARABIA.

VI. AFTER the recital of these circumstances, it is still to be considered, that in the whole of what has been said, it is intended to speak only in general terms: it is not meant to assert, that no ships went to India from Egypt before the reign of Ptolemy Philomêtor, or that no Greeks, in a later age, passed beyond Ceylon to Bengal, or the Golden Chersonese; but that the ordinary course of Oriental commerce was conducted in the way that has been stated, there is every reason to believe, and every evidence that is extant to prove. The value of this commerce, in the hands of the Arabians, is equally evident: their wealth was proverbial, and the particulars of it are detailed by Agatharchides. But there is still one point in which the Arabians are essentially distinguished from all the surrounding nations, which, through their means, partook in the commerce of the east; which is, that however ostentatious their neighbours might be, the riches of the Arabians were all applied to their private luxury and indulgence. In Persia, and Chaldêa, those vast public works and edifices arose, which astonished the travellers of the ancient world; and in Egypt, the ruins of the Thebaid are an equal cause of amazement at the present hour. In a secondary rank, Tyre, Jerusalem, Baalbeck, and Palmyra, surprise us with their magnificence; while in Arabia, history speaks only of

of one public work, which was the Tank⁸¹ at Mariaba; and when the head of that once failed, there never was sufficient industry or public spirit in the country to restore it.

No adequate cause is assignable for this national distinction, but that spirit of independence which broke the body of the people into parts too minute for a combination of interests, and too diffuse for co-operation. This spirit was never counteracted but for a short time by enthusiasm; and no sooner was that exhausted by evaporation, than they returned again to the state in which they are described by the ancients. They are still a nation of merchants⁸² and marauders, incapable of subjection, not less from their temper and habits than from the nature of their country; rarely formidable in a body, from their mutual jealousy and distrust; indifferent soldiers, but dangerous partizans.

No other reason is discoverable, why a nation that at one time possessed almost exclusively the commerce of the East, never arrived at a character of dignity and respect; and no other cause can I trace, why Idumêa became so easy a conquest to the Hebrews, Tyrians, Babylonians, and Romans. It is the influence over their government, and the possession of their harbours on the Red Sea by the Romans, which is now to be investigated; and if the command of the commerce obtained by this power continued with little interruption till the time of Justinian, and was not annihilated till the

⁸¹ This Tank is placed at Mariaba; but Pliny informs us, that Mariaba signifies a capital; still we have in Reiske, Maraba, the same as Saba; so that the Tank will mark Saba. See Reiske in Abulfedam, voc. Jemana. The Tank failed, according to some authors,

in the time of Alexander; others say, after Christ. Univ. Hist. fol. ed. vii. p. 276.

⁸² Strabo and Diodorus are in concert with Pliny, who says, lib. vi. p. 340. *Pars æqua in commerciis et latrociniiis degit: a fact equally true in all ages.*

irruption

irruption of the Mahomedans, it is a duration of this commerce in one channel, longer than has fallen to the lot of any other people in whose hands it has been placed.

LEUKÈ KOMÈ.

Our inquiry commences with Leukè Komè, or the White Village¹; and the character of White is attributed to several towns or villages on this coast. Ptolemy has an Argè Komè below Yambo; Haûr is another place, about three hundred miles from the head of the gulph; and a third, Haûr or Havarra is discoverable in the Itinerary, but forty-five miles from the same point. All these terms imply whiteness; but d'Anville assumes the second for the Leukè Komè of the Periplûs. In this he is justly supposed by M. Gosselin to be mistaken; because this second Haûr, at more than three hundred and fifty miles from Petra, could not afford a ready communication with that capital, neither could it be within the limits of Petrêa, but must then have belonged to Hejaz; which, that it did not, we shall have sufficient proof in the expedition of Elius Gallus.

M. Gosselin fixes upon Moilah; to which he is, perhaps, more particularly directed, by finding a name of notoriety in a situation that is probable: but on this coast, as he has very properly observed himself, there is no certainty to be obtained; the ancients have left us few marks of distinction, because they avoided the coast, which was itself dangerous, and more dangerous still from the disposition of its inhabitants; while the few notices which they have

¹ Almost every place inhabited by Arabians, is rather a village than a town or city.

left, are obliterated by the retreat of the sea, and the increasing advance of the shore. This arises from a cause which operates on the whole eastern side of the gulph; and in the lower part of it there are the remains of places twenty miles inland, which were formerly marts or harbours.

This must be accepted as a reason why so little satisfaction can be given in regard to individual positions. The general character of the coast, and the division of the provinces, will be distinct; but identical locality is by no means to be expected. This will be apparent in the immediate object of our inquiry, for the White Village itself is obscured by difficulties not easy to be surmounted.

The Haûr of d'Anville ⁸⁴ is in	Lat.	25° 2' 0"
The Moilah of d'Anville, in		27° 30' 0"
The Moilah of Gossellin, in his Map of Ptolemy		27° 50' 0"
Arga Komè of Ptolemy, by the	Latin text	22° 40' 0"
	Greek text	22° 30' 0"

But that there is still another Haûara, Avara, or Havarra⁸⁵, we

⁸⁴ The Haûr of d'Anville is ascertained by Al Edrisi to be lower than the island Naman, p. 109; a proof that it cannot be the Hauarra of the Itinerary.

⁸⁵ But I am apprehensive that I read 20 twice instead of once; if so, it is only 45 miles from Haila to Hauarra, and 38 from Hauarra to Petra. The latter distance must, in that case, assuredly be erroneous; and the former too, unless the sea of Acaba be as short as it is represented in the ancient maps, instead of running up to the north so far as it does in the maps of d'Anville, Gossellin,

and De la Rochette. Still, whatever be the errors, it is curious to see both these routes detailed at the extremity of the empire, in the reign of Theodosius; and the shorter the distances are, the more incompatible they are with the Haûr of d'Anville. (See d'Anville's Egypt, p. 129. with his opinion of the Itineraries.) There is a similar diminution of distance from Phara, or Ras Mahomet, to Haila, which the Itinerary makes only 16 miles; and both deficiencies, if they are such, must be imputed to the supposed shortness of the sea of Acaba, i. e. the Elanitic Gulf.

are certain from the Itinerary; and Stephanus⁸⁶ informs us, that it was founded by Aretas son of O'bodas, and called Aúara (which signifies *white* in Arabick and Syriack), from some vision of a man in *white*. Pliny adds, that Arra⁸⁷ is in the country of the Thimaneí, the adjoining tribe to the Nabatæans, and that here is the centre of commerce. Upon these authorities I had wished to have placed this Havarra on the coast, and to have assumed it for the site of the White Village; more especially as the Itinerary of the Peutingerian Tables points to the entrance of the Elanitick Gulph, and has one route of sixty-one miles from Aila to Havarra, and another of thirty-eight⁸⁸, from Havarra through Zadagatta⁸⁹ to Petra.

⁸⁶ See Stephanus Byz. in voce.

⁸⁷ Arra oppidum in quo omnis negotiatio convenit. Plin. vi. c. 28. The Thimaneí are the Bythimanees, or Batmizomanees, of Agatharchides, and upon the coast.

⁸⁸ I am not certain that I read the distances right; but they appear thus:

	Miles.
From Clyfma to Medeia	40
to Phara	80
	— 120
to Haila	50
	— 50
to Ad Dianam	16
to Posidium	21
to Havarra	24
	— 61
to Zadagatta	20
to Petra	18
	— 38
	269

If by Clyfma we are to understand the head of the gulph, or Suez, the opening of the

compasses gives precisely 200 Roman miles from Suez to Ras Mahomed, by d'Anville's map; 180 m. En. by De la Rochette's; 225 by Capt. Cook's Chart. When we find therefore only 120 miles in the Itinerary, we must suppose that a distance is omitted between Arsinoë and Clyfma, for both are noticed; but there is no number between the two, and Clyfma is placed on the eastern side of the gulph, not on the western, as in d'Anville. But if the numbers we have express the sense of the author, then we must add a third at least; and, by the same proportion, a third from Phara or Ras Mahomed to Haila, making that nearly 67 B. miles; a distance that agrees neither with d'Anville or De la Rochette, for both make it near 110. I have always supposed this distance much too large; and if Irwin's Chart might be depended on, my judgment must be right. Irwin is the only traveller I have met with who has entered the Elanitick Gulph; but though he speaks of the head, he does not quite say that he saw it.

⁸⁹ The Zaanatha of Ptolemy.

But in opposition to this we have the express testimony of Ptolemy⁹⁰, that Avarra is inland, and more northerly than Aila. This reduces me to the necessity of concluding, that this Haûr, or Havarra, cannot be the White Village of the Periplus; so that neither the Haûr of d'Anville, the Argè Komè of Ptolemy, or this Havarra of the Itinerary, will answer our purpose. But there are some circumstances in Agatharchides, which will lead us to a situation where such a port seems to be pointed out, in preference to any other on the coast.

VII. THAMUDÉNI AND CANRAITES.

THIS author, at the entrance of the Elanitic Gulph, has three islands: one, sacred to Isis; and the two others called Sookabúa and Salydó. These islands, after having been lost for twenty centuries, have been restored to geography by M. Irwin. He is the only voyager, as far as I can discover, who has ever entered this bay; and if his chart may be depended upon, he went up it five-and-twenty miles: in consequence of this he saw these islands, and has named them Tirán, Sanafir, and Barkan. I have never seen⁹¹ them in any chart, previous to his, arranged in the same order; but they bear such testimony to the fidelity of Agatharchides, that he deserves credit when he adds, that “they” cover several harbours “on

⁹⁰ See Tab. Asiæ, iv. and lib. v. c. 15.

Elana - - 26° 15' 0"

Avara - - 29° 40' 0"

Still there is a confusion; for the Greek text says,

Elana - - 29° 15'

Avara - - 29° 20'

But, after all, Avara is north of Elana.

⁹¹ The names are in Niebuhr, but the position is erroneous. One island is still called Jobu by De la Rochette.

⁹² Τὴν δ' ἐρημένην χώραν νῆσοι τρεῖς ἐκδέχονται, Λιμένας ποιῶσαι πλείους· μετὰ δὲ τὰς νήσους τὰς ἐκκεκλιμένας ἐστὶν ἰδεῖν αἰγιαλὸν λιθώδη καὶ μακρόν, ἢ δὲ χώρα Θαμυδιῶν Ἀράβων· ὁ δὲ πρὸς ταύτην παράπλευρος ἐπὶ γαδίῃ τῶν χιλιῶν πλείους πάντων χαλιπώτατος.

"on the Arabian shore" [as the Zaffateen Islands protect the port of Myos Hormus]; and one of these harbours, I conclude, must be the Leukè Komè of the Periplus; for he adds, "to these islands succeeds the rocky coast of the Thamudeni, where, for more than a thousand stadii, there is no harbour, no road where a vessel can anchor, no bay to afford protection, no scrap of a projecting point, to which the mariner can fly for refuge in a moment of distress."

However the colouring of this picture may be heightened, the general description is true, as may be seen by a reference to M. Irwin's Journal, from the 22d of June to the 9th of July; where we have every day islets, breakers, shoals, sands, and sunken rocks, with the mention of only one cove where the shore could be approached. The refuge his Arabian boat found, was generally under islets; but a navigator, who did not dare approach the shore, might well paint it in the same colours as Agatharchides has done. Irwin carries Moilah fifty miles more to the north than it appears in other charts⁹³, and within the Elanitick Gulph: if this be true, my conclusion is perfectly in correspondence with that of M. Gossellin; and if, by taking different methods, we both arrive at the same conclusion, it must be a strong confirmation that the point we have both fixed on is right; for a safe anchorage at Moilah, covered by the islands, and the unapproachable nature of the coast below, fix Moilah to a certainty for the Leukè Komè of the ancients.

τατος· εἰ γὰρ εἰν . . . εἰ λιμὴν ἑνορμος, εἰ σάλος ἐπ' ἀγκύρας, εἰ κόλπος ἐπισκεπής, εἰ χηλῆς ἐντύπωμα, ἀναγκάσια καταφυγή, τὸν ναυτιλλόμενον διχόμενον. Agatharch. apud Hudson, p. 59.

Χηλῆς ἐντύπωμα is a dubious expression; for though χηλή is the foot of a wall, or rather loose stones thrown into the sea to break the waves and protect the masonry of a pier, ἐντύ-

πωμα does not occur in the Lexicons: it may be the *form*, the *indenture* at the commencement of a projection. Unless the author aimed at a metaphor, by taking χηλή in its sense of a hoof, and so intended to mean the *impression of a hoof*; but in this sense the metaphor is not just.

⁹³ P. 143. oct. ed. vol. I.

VIII. BURNT ISLAND, MOOSA, COAST OF YEMEN.

FROM Leukè Komè to the mouth of the Straits, a course of more than a thousand miles, we have only two places mentioned—the Burnt Island, and Moofa: a proof, as it should seem, that this track was little frequented; and yet the author, by speaking in the first person, seems to have performed the voyage himself. The dangers he describes at large, much in the same manner as we have already reported them from Agatharchides; and the tribes, he says, which inhabit this tract, are numerous; some speaking a language perfectly distinct, and others a different dialect of the same. Those on the coast live in huts or cabins, like the Iethyophagi; and those who are inland, are a treacherous⁹⁴ race, living in hordes or villages, and speak two different tongues. If a vessel is driven to this shore, she is plundered; or if shipwrecked, the crew is reduced to slavery. The general name of these tribes is Canraites; and they are treated as enemies, and seized for slaves, by the other regular governments of Arabia. But it is not only the disposition of the natives which makes the navigation dangerous; for the coast itself is without harbours or roads, full of rocks, shoals, and breakers, and dangers of every sort; for which reason, in going down the gulph, we stand off from shore, and keep our course down the middle of the gulph, very desirous⁹⁵ of reaching [the more

⁹⁴ πονηροῖς ἀνθρώποις διφύνοις.

Supposed by Bochart to be Caulanites.—Caulan, a province and mountain between Mecca and Sana. Phaleg. p. 143.

⁹⁵ The word is παραζώνμεν. The sentence stands thus: διὸ καὶ ἐσωλήοντων, μέσον πλὴν κατέ-

χομεν, καὶ εἰς τὴν Ἀραβικὴν χώραν μᾶλλον ΠΑΡ-ΟΕΤΝΟΜΕΝ, ἄχρι τῆς κατακαυμένης Νήσου. I had very much doubted of the construction of this passage, when I cited it in the voyage of Nearchus; but I am now persuaded, that by considering Ἀραβικὴν χώραν as the civilized part

more civilized part of] Arabia, which commences about the parallel of Burnt Island, and continues down the whole coast to Moosa. In this tract the inhabitants are under a regular government, leading a pastoral life, and raising vast herds of oxen, camels, and other stock. Moosa is an established mart of great trade, in a bay near the termination of the gulph, at the distance of twelve thousand stadia, or twelve hundred⁹⁶ miles from Berenikè; and the whole [of this part] of Arabia abounds in merchants and mariners, both masters of vessels and common sailors, and is commercial in the highest degree. The commodities of the country are rich and numerous; but besides these, there is a great traffic [in India articles] from Barugaza, or Cambay. Inland from Moosa, at three days distance, lies Savè or Sauè, which is the seat of Cholebus, the king of the district called Maphartis; and nine days farther inland is Aphar or Saphar, the residence of Charibael, paramount both of the Sabæans and Homerites. This is the sovereign to whom the Roman emperors address their embassies, and whose friendship they conciliate by presents⁹⁷ of various sorts, and considerable value.

We have here a general division of Arabia corresponding to the modern distinction of Hejaz and Yemen, as nearly as can be expected after an interval of eighteen centuries. The northern part, occupied by Bedoweens, robbers, and marauders, living under tents

part of Arabia, that is, Yemen or Sabæa, the whole difficulty is removed; and the usage of Ἀραβίων in the same sense twelve lines lower, justifies the interpretation; for, τὸ μὲν ὅλον Ἀραβίων ναυκληρικῶν ἀνδρῶπων καὶ ναυτικῶν πλεονάζον, does not refer ὅλον to the whole of Arabia, but to the whole of Sabæa, as it is evident by the context.

⁹⁶ This is very accurate, reckoning the passage across the gulph, first to Leukè Komè, and then down the gulph to Moosa.

⁹⁷ Hudson renders this passage as importing presents made by Charibael to the Roman emperors; but in a following passage the presents from the Romans are specifically mentioned, without any notice of a return.

in

in hordes almost without towns, villages, or settled habitation of any sort; while the southern part is in a civilized state, highly cultivated, polished, and commercial, and under a regular form of government, such as Niebuhr found at Sana within these thirty years.

The limit of Hejaz, or Arabia Deserta, is fixed by d'Anville in lat. $17^{\circ} 12' 0''$ ⁹⁸, which gives it an extent of coast of near seven hundred and fifty miles, while there remain but little more than three hundred within the straits assignable to Yemen, or Arabia Felix. The northern part of the first division is that which answers more particularly to the dangerous coast described by the ancient authors, and explored by Irwin, terminating at Haffan Isle, in lat. 25° ; to which succeeds Yambo, the port of Yathrib or Medina, and Gidda or Judda, the port of Mecca, the Maco-rabba or Great Makka of Ptolemy. This appellation proves that it was a place of consequence in that early age; and history shews that there is hardly a place which deserves the name of city, except Mecca and Medina, in all that space which geographers allot to Arabia Deserta, across the vast peninsula, from the Red Sea to the Persian Gulph and the Euphrates. The numerous tribes which inhabit this desert are the Saraceni of the ancients, so called from Saharra⁹⁹ or Sarra, a desert, and corresponding exactly with the modern term of Bedoweens. In what sense this country is a desert, was unknown to the ancients, and is almost equally unknown to us; but that it is not arid, so as to preclude the produce of the earth, is evident from the swarms which these tribes furnished in the early period of the Mahomedan

⁹⁸ $19^{\circ} 0' 0''$ Niebuhr; $18^{\circ} 0' 0''$ De la Roche. Bedijah is Campania.

⁹⁹ Bedijah-Campania, Reiske in Abulfedam,

p. 5. Arabissæ Baduwinæ solebant nempe nutrices ex al Bedijah (i. e. campania) Mec-
cam ire.

conquests,

conquests, and from the consideration that every Arab is a horseman. Little as will suffice to support an Arab and his horse, both must be supported; if little corn is sowed or consumed, still those who live on the product of their herd must find pasture for their oxen, sheep, camels, and horses; and though many expatriate for this purpose in the season, the majority still remains at home, both winter and summer. Neither can their predatory life supply all their wants; for a whole nation must have a national support. Robbers as they are, they do not rob every one; the caravans still distribute all the merchandize which comes annually to the ports of Yambo and Jidda, through this very country; and in the commerce which the ancients describe, there was a regular intercourse between Sabæa and Petra, from the South, and between the gulph of Persia and Petra, from the East. This trade has fluctuated in different ages, from external causes: it is at this moment, perhaps, at a lower ebb than ever, from the commercial superiority of the Europeans in the Eastern Ocean, and from a diminution in the spirit of pilgrimage. But Mecca and Medina are still to be considered as marts rather than sanctuaries; and the commodities brought by the English from India, and by the Turks from Suez, still centre at Jidda¹⁰⁰, as an emporium of considerable importance.

It is the Turkish trade from Suez which the Romans occupied by being masters of Berenikè, Myos Hormus, Petra, and Leukè Komè. It is the English trade from India, which the Greeks and Romans first found in the hands of the Sabæans, and afterwards assumed to

¹⁰⁰ At the time Bruce was there, nine ships adds, are dispersed over the wildest part of from India were in the harbour, one of which Arabia by men with whom no traveller would was worth 200,000*l.*; and one Arab offered trust his life. Bruce, vol. i. 278. to purchase the nine cargoes. All these, he

themselves, as soon as they had fleets on the Red Sea that neither feared the Nabathæan pirates at the head of the gulph, or the Sabæan merchants at the straits; and from the time they learned the nature of the monsoon from Hippalus, they made a voyage to India more advantageous, than the purchase of a cargo at Moosa or Okélis.

IX. EXPEDITION OF ELIUS GALLUS.

THE voyage from Suez or Arsinoë was first planned by Neco; it was afterwards meditated by Alexander, and it was executed by the Ptolemies previous to the establishment of Myos Hormus and Berenikè. It was not unknown to the Romans when they reduced Egypt, though then in disuse; but Elius Gallus set out on his expedition from this port, and Strabo imputes his failure to this circumstance as a leading cause.

Strabo laments that this expedition added little to the geographical knowledge of Arabia; and we have reason to complain that Strabo, who lived in habits of intimacy with Gallus, has recorded so little of the information which might have been obtained from that commander. The consequence is, that d'Anville, who follows Pliny, carries the Roman arms to Mariaba, the Mareb of the Arabians; and that M. Gossellin, by his interpretation of Strabo, supposes Mariaba, or Marfyaba, to be the Maco-raba¹ of Ptolemy, the Mecca of Mahomet. The distance between these two places is little short of nine degrees; so that the difference between the two estimates is 675 Roman miles.

¹ Mecca is always written Macca by Reiske, in his version of Abulfeda.

If there were any data to determine this dispute, no labour should have deterred me from investigating it to the utmost; but as Pliny says, that the places which occurred in the expedition of Gallus are not found in authors previous to his time, the same may be said of subsequent writers; for there is not one of them, ancient or modern, who will do more than afford matter for conjecture. This is the reason that compels me to give a sketch only of an expedition so intimately connected with the commerce of the ancients in Arabia.

The commission of Gallus from Augustus was to explore Ethiopia, the country of the Troglodytes, and Arabia. The first part was executed by Petronius, his lieutenant, and terminated by the submission of Candacè, queen of Meroë. But Arabia, Gallus reserved for himself; and the country of the Troglodytes he crossed when he landed at Myos Hormus, on his return. This expedition commenced at Cleopátris¹⁰², in the neighbourhood of the modern Suez, where we find him at the head of an army consisting of ten thousand Romans, five hundred Jews, and a thousand Nabatêans from Petra, with a fleet of eighty¹⁰³ vessels of war, and an hundred and thirty transports. Syllêus¹⁰⁴, the minister of O'bodas king of Petra, was to conduct this force; but his interest was concerned in defeating the expedition, which he effected, and afterwards paid the forfeit for his treachery with his life. The first error into which he led Gallus, was the preparation of a fleet, which consumed¹⁰⁵ much time,

¹⁰² Cleopátris is considered as Arsinoë; but perhaps Arsinoë, Cleopátris, and Suez, have all followed the retreat of the sea at the head of the gulph.

¹⁰³ Biremes, triremes and phaseli.

¹⁰⁴ See supra, p. 246.

¹⁰⁵ We have the account of preparing a Turkish fleet in the same manner, anno 1537; by which we learn, that the country affording no materials for ship-building, the several articles

time, and was of no service; for the army might have proceeded from Cleopátris to Petra, and thence to the head of the Elanitic Gulph, through a friendly country, and in the ordinary track of the caravans¹⁰⁶. But fifteen days were required to extricate the fleet from the sea of Suez, and to reach the road of Leukè Komè; and here, when they arrived, many vessels had been lost, and the troops were so afflicted with a disorder in the mouth, and swelling in the legs, that the remainder of the year was lost, and the expedition delayed till the following spring.

Upon leaving Leukè Komè, Gallus advanced, first, through a desert¹⁰⁷ into the country of A'retas, who was related to O'bodas,

ticles were brought across the desert from Cairo on camels. In this manner a fleet of 76 vessels was constructed, which, from the time it weighed from Suez, was ten days before it reached Tor, and left it on the eleventh. This accounts for the fifteen days employed by Gallus in performing a passage of little more than 240 miles. See Ramusio, tom. i. p. 274. Viaggio per un Comito Venitiano.

¹⁰⁸ We have the route of the pilgrims in Mel. Thevenot, Pococke, and Shaw, from Cairo to Mecca; and reckoning from Ageroud, which is near Suez, the account in Thevenot stands thus, tom. i. p. 151:

	Hours.
From Ageroud to Navatir - -	6½
Rastagara - -	10
Kalaat el Nakel - -	15
Abiar Alaina	
(Aila?) - -	14
Sath al Acaba - -	15
Kalaat al Acaba - -	16
Dahr el Harmar - -	6½
Sharaffe Beni-gateie - -	14

	Hours.
Magure Schouaib	
(Jethro) - -	14
Moilah - -	15
	126 126
The rate of a caravan is from 3 to 2½ miles an hour - -	3 2½
	378 252
	63
	315

This route measures, by the compasses, in a right line on De la Rochette's map, nearly 280 miles, which, with the allowance for road-distance of $\frac{3}{7}$, amounts to 320 miles; and this at 15 miles a day, a moderate march for a Roman army, requires 21 days: so that they proceeded faster by sea than they would have done by land; the time lost, therefore, was in the preparation of the fleet.

¹⁰⁹ This is the same desert which Mahomet passed in his march from Medina to Hagir and Aila, where, Abulfeda says, magnas illi per viam tolerabant molestias ab æstu et siti, p. 52. Ed. Reiske, 1754.

and

and seems to have been the sovereign of the Thamudites; but Syllêus had the same influence here as in Petrêa; and though the country was not destitute, or the prince unfriendly, thirty days were employed before the army reached the country of the Nomades or Bedoweens, called Ararênè¹⁰⁸, and subject to Sabus. This tract has a resemblance to the territory of Medina and Mecca; and the space of fifty days employed in passing it, till they reached the city of the A'grani¹⁰⁹, Négrani, or Anágrani, which was taken by assault, is some confirmation of the conjecture. The king had fled into the desert; but the country was not hostile, nor altogether incapable of supplying the necessaries requisite for the army¹¹⁰.

From hence, after a march of six days, they arrived on the bank of a river, where the natives were collected in a body, and opposed their passage: a battle was the consequence, in which, with the loss of only two Romans, ten thousand Arabians were slain. Strabo describes them equally deficient in spirit, as they were ignorant of the art of war; and yet these very tribes were in a future age, under

¹⁰⁸ Ararênè is probably Sara-rene, as Aphar is Saphar; and Sara is Saharra, *the desert*.

¹⁰⁹ A'grani in the first mention is written Négrani in the MSS.; and on the second, τὰ Νάγρανα: and Casaubon wishes to read Αγγαίος. See Strabo, pp. 781, 782. All these readings prove the uncertainty of the ground we stand on; and any of them would justify d'Anville in assuming Najeran (a place fully described by Al Edrissi, and well known to Niebuhr), if the other circumstances of the expedition will accord. Najeran is a fortress dependant on Mecca: it lies 12 days south of that capital, and east of the mountains which bound the Tehama. See Al Edrissi, pp. 48, 50, 51. This is perfectly consistent, if Ararene is the

country of Medina and Mecca; and Najeran must be, by comparing circumstances in Al Edrissi, on the borders of Yemen, nearly on a parallel with Sadum Rah. Consult. p. 48.

¹¹⁰ Ali passed through Najeran, and brought a tribute from it, when he was returning from Yemen, whither he had been sent to preach the Koran by Mahomet; and if Nágrana be Najeran (as to all appearance it is), it directly contradicts Gosselin's hypothesis, that Elius Gallus terminated his expedition at Mecca. Abulfeda Reiske, p. 53. Abulfeda mentions the conversion of the kings of the Homerites, the people of Arabia Felix; and adds, that Ali's preaching converted the whole tribe of Hamdan in one day.

the influence of Mahomedan enthusiasm, to subdue the world, from the Pillars of Hercules to the Indus.

The loss of this battle produced the surrender of Asca, a city in the neighbourhood; and, without learning what time was spent here, or what distance intervened, the next place we find them at is Athrulla. Athrulla was taken without difficulty, and garrisoned, and a supply of provisions was obtained, which enabled them to proceed to Marfyaba. This city is described as the capital of the Rhaminites, and the seat of Ilasar¹¹¹, the sovereign of the country. Here terminated the expedition; for, after lying before the place six days, Gallus was compelled, by want of water, to raise the siege, and retreat to Anágrana, where the battle had been fought¹¹², and which he did not reach till after a distressful march of nine days.

From this time, the preservation of his army was the more immediate object of the commander, than the hope of conquest: he had spent six months in reaching Marfyaba; he was now convinced of the perfidy of Syllêus; he imputed the whole failure to the direction of the march by the advice of that minister; and if the same delay should occur on the retreat, he saw that the destruction of the army was inevitable.

To prevent this, it is evident that the route was changed; and we are led to conjecture, that it was directed from the interior to the

¹¹¹ By consulting Ptolemy, the country of Elifárus, or the Elifári, is far too much to the south to allow of the supposition that Gallus went no farther than Mecca.

¹¹² The copies of Strabo are so incorrect in these names, that though there is evidently an intention of the editor to make A'grana

first mentioned, and Anágrana or τὰ Νάγαρα in this place, correspond, either the author or the text are at variance; for the battle was not fought at A'grana, but six days from it, and apparently at Asca, as that city surrendered immediately after the battle.

coast. In this case, the army must have crossed the mountains and descended into the Tehama; and yet in a march of sixty days, we have nothing to guide our inquiries but the mention of four places, without dates, and with one distance only specified: these are, *The Seven Wells*, eleven days from Anágrana; Chaalla, Málotha, and Nera. Nera¹³, we are informed, was in the territory of O'bodas, that is, in Petrêa, and in all probability at some distance to the southward of Leukè Komè.

At Nera the army embarked, and was eleven days in crossing the gulph to Myos Hormus. The route from this port to Koptus on the Nile has been already described; and from Koptus, Gallus proceeded to Alexandria with the shattered remains of his forces. Of these, seven only had perished by the sword; but a very great proportion was rendered unserviceable by disease¹⁴, famine, and a variety of distresses which they had experienced in the course of the campaign.

Thus ended an expedition, planned without policy and conducted without capacity. If it had succeeded, the Romans could not have established themselves in the country; and by its failure, it retarded

¹³ Nera, in the margin of Strabo, is written Hygra, and Negra in Casaubon's translation; and in such a fluctuation of the MSS. or printed copies, we have nothing to determine our doubts: but we may conclude, that the place, whatever is its name, must be considerably below Leukè Komè, as the passage from that port to Myos-Hormus was only three days. This, however, was for a single ship, and Gallus had a fleet; but we must suppose he continued his course up the coast to the northward, and came by Ras Mahomed to the Egyptian shore. Much difficulty stands in

the way of calculation; and, after all, it is not quite clear whether Strabo's eleven days are to be reckoned from the time Gallus reached Nera, or from the day he left it: I conclude the latter to be intended. A Negra is mentioned by Cedrenus, p. 364. 500 years later, where a St. Arethas was put to death by Elesbaas, the Abyssinian conqueror of the Homerites. One should not have expected to find a Christian martyr, of the name or family of the Arethas's of the desert.

¹⁴ Dio says, they did not merely retreat, but were driven out.

their

their full intercourse with India for almost a century. But if it were possible to give the reader satisfaction on the extent of it, no apology would be requisite for the digression. This, from the scantiness of materials, cannot be done; but as my conjectures differ both from d'Anville and M. Gosselin, I shall barely state the grounds on which they are founded, and leave the determination to the judgment of the reader.

The first step towards fixing the termination of the expedition, would be to distinguish Marfyaba from all the cities with which it is confounded.

The Marfyaba of Strabo is in the country of the Rhamanitæ, and under the government of Ilafarus. It is not the Mareb of Sabêa, where the great Tank¹⁰⁵ is, for that he calls Meriaba of the Sabêans; and this sufficiently declares against d'Anville's system, which carries Gallus into Sabêa, and on which Gosselin justly observes, that if Gallus had besieged Mareb, he would not have been obliged to raise the siege for want of water, the reason assigned by Strabo.

Ptolemy has likewise a Máraba (written Báraba in the text) which he places in the country of the Minêans, and calls it a metropolis; and a Mariama, two degrees to the south-east; but he has no Maríaba either in Sabêa or the country of the Homerites. His Elisári, the Ilasar of Strabo, are still farther south than the Minêans, and upon the coast.

Pliny has two Mariabas: one marked by the Tank, called Bara-malchum¹⁰⁶, the Royal Sea or Lake; and another, in the country

¹⁰⁵ Mareb is still the capital of a large province in Yemen called Desjof, between Najeran and Hadramaut, where the ancient traditions concerning the Tank, the queen of Sheba, &c.

are still current. See Nieb. t. ii. p. 119. Arabic.

¹⁰⁶ Bahr-u-melk, Bahr-u-malk, Bahr-u-mal-kim; the Lake of the King, or the Kings; the Royal Lake.

of the Calingii; he adds, that Mariaba is a general name of a capital. It is apparently then the Mariaba¹¹⁷ of the Calingii which he informs us, contrary to the assertion of Strabo, that Gallus took, and finished his invasion at Caripeta. But it is still more extraordinary, that the other cities he mentions as taken and destroyed by Gallus, do not, in any one instance, correspond with those of Strabo, except that his Negra is possibly Nera¹¹⁸.

Dio¹¹⁹ terminates the irruption at Athlula, evidently the Athrulla of Strabo: he mentions the army being afflicted with a disease in the head and legs; and adds, that Gallus did not merely retreat, but was driven out by the natives.

The whole of this goes to prove, that Gallus did not reach Mareb Baramalcum; and, in short, the fact is impossible; for *that* Mareb is above eleven¹²⁰ hundred miles from Moilah, and the retreat of Gallus, in sixty days, would require a march of almost twenty miles a day, which, for such a continuance, is not to be performed.

But if the Mareb of d'Anville be too distant, the Mecca of Goffellin is too near; for the route of the caravan, from Moilah to Mecca, makes it only 731 miles, at 3 miles an hour.

547 — at 2½ miles an hour.

546 — d'Anville's Map.

560 — De la Rochette's Map.

Add for road-distance 80

640 — probable mean distance, from 620 to 640.

¹¹⁷ Supradictam Mariabam. The Mariaba of the Calingii is the last mentioned, and Hardouin supposes that to be meant.

¹¹⁸ May it not be Negrana, for Nagrana?

¹¹⁹ Lib. liii. p. 350. Ed. Steph.

¹²⁰ It is 1085 in a right line, which, with the addition of a seventh, becomes 1240, and increases the difficulty.

If, therefore, Gallus was advancing for six months, he must have marched little more than an hundred miles a month. And let us suppose, with Gossellin, all the fraud of Syllêus, and all the deviations of the march he pleases, this advance is far less than a Roman army can be supposed to make. The country Gallus was desirous of reaching, was the country of gold ¹²¹, frankincense, myrrh, and spices, certainly either Hadramaut or Yemen; and when he was at Marfýaba, he was told he was but two days distance from the province he wished to enter. He might be deceived in that, and most probably he was; but the deception could hardly amount to the difference between two days and thirty, and Mecca is little short of thirty days from Hadramaut.

Gossellin supposes Athrullâ to be Yathreb or Medina, and Marfýaba to be Macoraba or Mecca; but it is not easy to discover the resemblance of these names, or the other five he gives from Pliny. Strabo is surely a better guide, who was in habits of intimacy with Gallus, and who received the names most probably from his report. Pliny says, that Marfýaba was taken, and that the expedition terminated at Carípeta: Strabo asserts, that Marfýaba was not taken, and does not notice Carípeta at all. It is not safe to build on similarity of names; but Nagrana, which Gossellin supposes to be Al Nokra ¹²², is certainly more nearly related to Najeran in sound. Najeran is assuredly as ancient as Mahomed's time: it is a conspicuous pro-

¹²¹ Strabo, 780.

¹²² Al Nokra is the place where the road from Basra to Medina joins that from Kufa to the same city. A Basra ad Medinam stationes fere viginti, & hæc via coincidit cum extremitate Kufæ prope Maaden al Nokra. Al Edrissi, p. 121. Even as d'Anville has placed

Al Nokra, I conceive it lies far too much to the east to be in the track of Gallus; and, from the expression of Al Edrissi, I conclude it lies farther east than d'Anville has placed it. But even if d'Anville is right, Al Nokra is upwards of 200 miles out of the road that Gallus appears to have taken.

vince still, according to Niebuhr¹²³; and Al Edriffi¹²⁴ places it on the road from Mecca to Yemen. This appears to be the very route by which Gallus was advancing; and Najeran, by the Arabian accounts, was capable of affording the supplies of which the army stood in need. I am myself therefore persuaded, that Gallus entered the country of the Minéans, and that the city he assaulted, whether Mariaba, Marfyaba, or Caripeta, was the capital of that province; for Mariaba implies a capital in general; and if Ilasar is the king of this tribe, whether Calingii, Rhamanítæ, or Elefári, I would comprehend all three under the title of Minéans. At least, to my conception it is clear, that Ptolemy, Pliny, and Strabo, all point to something farther south than Mecca.

Whether this opinion will meet with the approbation of others, is dubious; such as the obscurity and contradiction of my authorities will allow, I give it. If Najeran be a fixed point, and concluded, we have ground to stand on; if it can be disputed, I am ready to embrace any assumption that may be supported upon better proofs. What the Rhamanítæ of Strabo, or Calingii of Pliny, may be, seems impossible to determine. Gosselin concludes, that the Rhamanítæ of Strabo are the Manítæ of Ptolemy: it is the strength of his argument; and in Mercator's Map, the Manítæ are placed on the north of Mecca. But perhaps Mercator is misled, for we have no latitude of the Manítæ; and the text says, below the Manítæ¹²⁵ is the interior Myrrh country, and then the Minéans, a great nation. I have not yet met with any account of myrrh in Hejaz, and therefore, if the Rhamanítæ and Manítæ are the same, I conclude that they are

¹²³ Arabie, ii. 114.

¹²⁴ Pages 48, 49.

¹²⁵ Ὑπὸ τῆς Μανίτης ἢ ἐντὸς συμφοροῦς, εἴτα Μανίται μέγα ἔθνος.

in Yemen. But the whole of this is conjectural; and, if names avail, I might with equal propriety contend, that Rhaman is Haman, or Hamdan, the tribe converted by Ali, the position of which answers; or assert, that Cari-Peta is Carni-Peta, correspondent to the Carna¹²⁶ or Carana of Strabo, which he says was the capital of the Minêans.

Is it not reasonable to suppose that the army moved in the track of the caravans¹²⁷? and as the line here assumed is direct between Hejaz and Hadramaut, and cuts the province of the Minêans, who were the regular carriers between both, does not this supposition solve more of the difficulties than any other? It is but a supposition at last; still, where our ignorance of the country renders every effort dubious, a rational hypothesis is all that can be expected.

Najeran¹²⁸ itself is in Hejaz, for it is one of the fortresses of Mecca, according to Al Edrissi; and the boundary of this province and Yemen, is fixed at the following station. If, therefore, Gallus

¹²⁶ I have a leaning towards the connection of these two names; but if the two places be the same, the difficulty is not removed; for the same city cannot be taken, and not taken; and the expedition cannot terminate at two different places. The following circumstances, however, may be curious, if not convincing:

The four great nations in Arabia Felix, or Yemen, were the Minêans, the Sabêans, the Katabananes (who are in the Maphartis of the Periplus), and the people of Hadramaut. As the power of the Sabêans declined, the tribe of Hamyar (the Homêrites) prevailed, whose capital was Aphar, Saphar, or Dabar; but the capital of the Minêans was Karna, or Karana. Μειναῖοι . . . πόλις αὐτῶν ἡ μέγιστη Κάρνα, ἢ Καρανά. Strabo, 768. I ask curi-

ously, but without affixing any importance to it, may not the Karipeta of Pliny be Karni-Petra, the fortress of Karna? If this could be supposed, Mariaba, or *the capital*, is identified with Karni-Petra; for both are the principal city of the Minêans.

¹²⁷ Strabo has pointed this out, under the supposition that Gallus might have marched by the caravan-road through Petréa. Λευκὴν καὶ μὴν, εἰς ἣν . . . οἱ καμηλέμποροι τοσούτω πλήθει ἀνδρῶν καὶ καμήλων ὁδεύουσιν ἀσφαλῶς καὶ εὐπόρως εἰς πέτραν ἐκ πέτρας, ὥστε μὴ διαφέρειν μηδὲν στρατοπέδου. The camels and men in the caravans find supplies from fortress to fortress, in the same manner as an army.

¹²⁸ El Edrissi, p. 49.

was nine days in returning hither after his repulse, we may suppose that he would not march less than fifteen miles a day on such an emergency: this requires that he should have advanced upwards of an hundred miles into Yemen. And if we date from Najeran the sixty days employed in his retreat to Nera, an estimate between twelve and fifteen miles a day would enable him to reach that port in the time assigned. This seems a great exertion for sixty¹²⁹ days continuance; but famine impended, and doubtless the Arabs hovered in the rear; add to this, that when the army arrived in Egypt it was completely ruined, as Strabo informs us, by famine, hardship, sickness, and the difficulties of the march.

Nera, as it is the termination of the expedition, I should have been glad to fix, but no representative offers; it must be within the limits of Petræa, and it should be placed as far below Leukè Komè as the province will admit: it may perhaps be discovered by some future Niebuhr; or an enlarged knowledge of the language, and the country, may shew that we are all pilots at sea, without instruments, charts, or compass.

We are now to return to the coast, on which, as has been already noticed, the Periplus mentions only the Canraites, Burnt Island, Moosa, and Okélis. The Canraites are the wild tribes on the broken shore of the Hejaz, terminating about Haffan Isle, in lat. 25°. And the passage from Leukè Komè to the Burnt Island was conducted with a view of avoiding the coast throughout. How this could be effected during a run of from ten to twelve degrees, or more, is not easily accounted for; but one of these distances it must

¹²⁹ But it agrees with a similar route from which required 65 days. Lib. xii. 32. Har-Thomna to Gaza, mentioned by Pliny, douin.

be, according as we assume Gebel Tar, or Gebel Zekir, for Katake-káumene, or the Burnt Island; and as both preserve at present the signs of volcanoes in decay; one of them it must be, as may suit best with other circumstances mentioned. The extreme distance is from Moilah, in lat. $27^{\circ} 56'$ ¹³⁰ to Gebel Zekir¹³¹, in $13^{\circ} 50'$; the smallest, from Hassan Isle, in 25° ,¹³² to Gebel Tar, in $15^{\circ} 10'$. If Mokha is assumed for the representative of Moosa, and Moosa be the only object of the ancients, Gebel Zekir must be preferred; or if we suppose that the ancients wished to approach the coast, as soon as they found the natives more civilized, we should rather be directed to Gebel Tar¹³³: for in that latitude, and even to the north of it, we are to fix the Sabéans generally, in the same manner as Niebuhr extends the dominion or influence of the modern Sana. Sana in fact, under the government of its Imam¹³⁴, as it comprehends nearly the same territory as the ancient Sabêa, so does it partake of the manners and habits attributed to that nation, where commercial intercourse had softened the Arabian character, and in-

¹³⁰ Making $14^{\circ} 6'$.

¹³¹ Notwithstanding the disagreement of M. d'Anville and M. Gosselin, no one can search this question thoroughly without reference to the dissertation of the former on the gulph of Arabia. I have collected materials from both; from P. Sicard, Irwin, Bruce, and De la Rochette's beautiful chart. If I prefer the latitudes of the last to all others, it is because they are founded more especially on observations made by English navigators, and the officers on board the sloops, packets, and trading vessels in that sea, are, for the most part, scientific men, and better qualified to determine nautical questions than any navigators who have preceded them.

¹³² Making $9^{\circ} 50'$.

¹³³ Jibbel Tier is the point from which all ships going to Jidda take their departure after sailing from Mocha. Bruce, i. p. 341. This, though the course is the direct contrary to that of the Periplus, still marks it as a point of departure and destination.

¹³⁴ This is evident, from Barteman in Ramusio, the French Voyages in 1721, by La Rocque, and Niebuhr. The government of the Imam is much more gentle than any Moorish government in Africa or Arabia; the people, too, are of gentle manners, the men, from early age, being accustomed to trade. Bruce, i. 307.

introduced that security of life and property, without which commerce itself cannot exist.

Mooza, according to the *Periplus*, was the regular mart¹³⁵ of the country: it was not a harbour, but a road with a sandy bottom, which afforded good hold for the anchors¹³⁶, and where the ships lay in great security: it was inhabited wholly by Arabians; and was frequented on account of the Indian trade with Barugaza, as much as for its native produce.

The intercourse with the Sabæans had from the first been established, either here or at some mart in its vicinity; but the Sabæans were now no longer the prevailing tribe; the Homerites, who came from Mareb, were become the superior power, and Charibæel the sovereign of both nations. He had fixed the seat of his government at Aphar, supposed by Gossellin to be the same as Dabar or Safar; and Dabar is noticed by Niebuhr as a place near Mount Sumara, now in ruins. The distance, however, does not answer; for Aphar is placed by the *Periplus* thirteen days inland from Savè, and Savè three days from Moofa. But if Savè is the same as Taas, or Mount Sabber, the distance from Sabber to Dabar is not much more than from Moofa to Sabber; and thirteen days from Sabber inland would carry us much nearer to Sana, the modern capital of the Imam, and the metropolis of Yemen.

It is possible, that in a country subject to perpetual revolutions, provinces may have obtained different names from the tribes that occupied different situations: this seems apparent in the district of Cataba, which is now inland sixty miles from the coast, notwith-

¹³⁵ ἡμῶν ἡ πόλις, the port established by the native government.

¹³⁶ Bruce mentions the same circumstance

of the road of Mokha. The cables, he says, do not rub, because the bottom is sand, while it is coral in almost every other part.

standing that Strabo places the Catabanians immediately at the straits. It may be, therefore, presumption to say, that Savè is Sabber¹³⁷, or Aphar, Dabar; notwithstanding that the territory of Maphartis¹³⁸ at Savè, or the capital of the Homerites thirteen days inland, may afford us general information sufficiently correct. Cholêbus, the sovereign of Maphartis, whose residence is at Savè, is styled a tyrant by the Periplus, that is, a prince whose legitimate title was not acknowledged; but Charibael is the genuine¹³⁹ sovereign of the Homerites and Sabéans. The power of Cholêbus extended over the south-west angle of Yemen, both within and without the straits, occupying the same tract as the Catabanians of Strabo in a former age. And Cholêbus had a joint power¹⁴⁰ with the subjects of Charibael at Moosa, over the settlement at Rhapta, on the coast of Africa.

The mart of Yemen, at the present day, is at Mokha, where coffee is the grand article of exportation, on which the Imam of Sana¹⁴¹ receives a duty of twenty-five per cent. equivalent to the custom exacted by the Romans at Leukè Komè seventeen hundred years ago. Twenty miles inland from Mocha, Niebuhr discovered a Moosa still existing, which he with great probability supposes to be the ancient mart, now carried inland to this distance by the accretion of the coast. And if the accretion is allowed, certainly

¹³⁷ Niebuhr has a conjecture also relating to Sabba and Zebid, tom. ii. p. 55.

¹³⁸ Periplus, p. 13.

¹³⁹ Ἰνδισμὸς βασιλεὺς. Perip. p. 13.

¹⁴⁰ So I interpret a passage (p. 10. of the Periplus) νέμεται δὲ αὐτὴν (τὴν χώραν) κατὰ τὴν δίκαιον ἀρχαίαν ὑποτίπτεσθαι τῇ βασιλείᾳ τῆς πρώτης γινομένης Ἀραβίας, ὁ Μοφαρίτης τύραννος. Παρὰ δὲ τῇ βασιλείᾳ ὑπόφορον αὐτὴν ἔχουσιν οἱ ἀπὸ Μέσα. I understand by this, that Τύραννος means Cholêbus, and βασιλεὺς Charibael; and that the

merchants of Moosa, who were subjects to Charibael, received a tribute from Rhapta, while Cholêbus had the civil administration of the settlement. Μοφαρίτης τύραννος, is the Tyrant of Maphartis. Mophartis and Maphartis differ no more than Dofar and Dabar, in the pronunciation of which Niebuhr says he could perceive no difference.

¹⁴¹ Niebuhr, who cites Pliny, lib. xii. c. 35. for another instance: Regi Gebanitorum quas myrrhæ partes pendunt.

no situation can be assumed more correspondent to the ancient authorities.

At Moosa, the IMPORTS specified are these:

Πορφύρα ¹⁴ διάφορος καὶ χυδαία,	Purple Cloth, fine and ordinary.
Ἰματισμὸς Ἀραβικὸς χειριδωτὸς ὃ τε ἀπλῆς καὶ κοινὸς καὶ σκοτελάτος,	Cloaths made up in the Arabian fashion, with sleeves, plain and common, and (<i>scutulatus</i>) mixed or dappled.
Κρόκος,	Saffron.
Κύπερος,	Cyperus. Aromatic Rush.
Ὀθόνιον,	Muslins.
Ἀβόλλαι,	Cloaks.
Λώδικες ἢ πολλαὶ ῥιπλοὶ τε καὶ ἐντόπιοι,	Quilts, a small assortment; some plain, and others adapted to the fashion of the country.
Ζῶναι σκιαταί,	Sashes, embroidered, or of different shades.
Μύρον,	Perfumes.
Χρῆμα ἱκανόν,	Specie for the market, or in considerable quantity.
Οἶνος τε καὶ σῖτος ἢ πολὺς	Wine and Corn, not much. The country produces some corn, and a good deal of wine.

EXPORTS:

Σμύρνα ἐκλεκτή,	Myrrh, of the best quality.
Στακτὴ ἀβειρμναία, ¹⁵	Stactè, or Gum.
Λύγδος,	White Stones. Alabaster.

¹⁴ The modern articles of import and export may be seen in Niebuhr, tom. ii. p. 52.

¹⁵ A doubtful reading; but probably containing *Μιναι*, i. e. from the country of the Minæ.

Added to these were a variety of the articles enumerated at Adûli¹⁴⁴, which are brought over from Africa and sold here. But there were likewise several others imported as presents both to Charibâel¹⁴⁵ and Cholêbus; such as horses, mules, gold plate, and silver embossed, robes of great value, and brass ware of various kinds. Of these it may be presumed that Charibâel had the largest share; for to him embassies¹⁴⁶ were frequently addressed, and he was considered as the friend of the Roman emperors.

The importance of this commerce, as it appears in the Periplus, is manifestly far inferior to the representation of it in Agatharchides; and the trade of the Sabêans declining, after the fleets from Egypt found their way to India direct, was probably not only the cause of their impoverishment, but of their subjugation also by the Homerites. Still it is evident that the manners of the people in this quarter of Arabia were civilized; that the government was consistent, and that the merchant was protected. This character, as we learn from Niebuhr, Yemen still maintains, in preference to the Hejâs, and the whole interior of the peninsula. The same security is marked as strongly by the Periplus in Hadramaut; and the whole coast on the ocean being commercial, the interests of commerce have subdued the natural ferocity of the inhabitants.

It is a circumstance foreign to the object of the present work, but still curious to remark, that in the age previous to Mahomet, Yemen

¹⁴⁴ Coffee and frankincense are the chief of the native exports at present, with myrrh, ivory, and Abyssinian gold from Massua, answering to the ancient Adûli. *the title of Friend of the Emperors, an honour formerly conferred upon sovereigns in alliance with Rome, by a vote of the senate. Massinissa, Eumenes, and Ariovistus, were styled*

¹⁴⁵ Τῷ τε βασιλεὶ καὶ τῷ τυράννῳ.

¹⁴⁶ Συνεχέσι πρεσβείαις καὶ δώροις φίλος τῶν αυτοκρατόρων; may be rendered as expressing, that by frequent embassies and presents he had obtained

Amici Populi Romani. But I have preferred the rendering in the text, because the presents from Rome are specified.

was in the possession of the Abyssinians, whose power terminated with his birth; and that in the short period¹⁴⁷ which intervened between his assuming the prophetic office and the Caliphate of Abubecre and Omar, all this part of Arabia was, almost without an effort, subjected¹⁴⁸ to their power. In the sixteenth century the Turks were masters of the coast, and some places inland, but were driven out by the founder of the present dynasty, Khasssem el Ebir, whose posterity assumed the title of Imam, and fixed their residence at Sana, the present capital of Yemen, which cannot be very distant from the ancient metropolis of Sabêa.

On this coast, the first fleets that sailed from Egypt met the commerce from India. Agatharchides seems to say, that the ships from Persia, Carmania, and the Indus, came no farther than the coast beyond the straits; and that the fleets from Egypt received their lading without passing them. Now the fleet from Carmania and the Indus could not reach Arabia without experiencing the effects of the monsoon, as Nearchus had done; and the knowledge of this once obtained, could not be lost. We cannot go farther back, historically, than the journal of Nearchus; but in that we find manifest traces of Arabian navigators on the coast of Mekran, previous to his expedition. And whether the Arabians sailed from Oman or Sabêa, it is still a proof that the monsoon must have been known to them before the time of Alexander; and a high probability that they had reached the coast of Malabar, or that vessels from that coast had reached Arabia, from the earliest ages.

¹⁴⁷ Niebuhr, tom. ii. p. 10.

¹⁴⁸ Yemen seems to have been converted before Mahomet's death, if we credit the account of Ali's mission and success. But the

accession of the strongest and richest provinces of the peninsula, of the more civilized to the more barbarous, is one of the obscurest facts in the early history of the Mahomedan power.

The distance from Moofa to Okêlis is short of forty ¹⁴⁹ miles. Okêlis has a bay immediately within the straits; and at this station the fleets which sailed from Egypt in July, rendezvoused ¹⁵⁰ till they took their departure the latter part of August, when the monsoon was still favourable to conduct them to Muziris, on the coast of India. For Okêlis we have Okîla ¹⁵¹ in other ancient authors, and Ghella is the name it bears at present. D'Anville has marked it sufficiently in his Ancient Geography; and in Capt. Cook's ¹⁵² chart, which is upon a large scale, the entrance of this bay is two miles ¹⁵³ wide, and its depth little short of three. Added to this, if it is considered that the projection of the Bab-el-Mandeb point is a complete protection ¹⁵⁴ against the contrary monsoon, we find here all the conveniences ¹⁵⁵ that were requisite for a fleet constructed like those of the ancients.

¹⁴⁹ 300 stadia, Peripl. equal to $37\frac{1}{2}$ miles, or, at 10 stadia to the mile, 30 miles.

¹⁵⁰ See *supra*, pp. 37. & 75.

¹⁵¹ *Αὐλά*, text; *Οὐλά*, marg. Strabo. P. 769. he calls the promontory by this name.

¹⁵² It has been already noticed, that the Capt. Cook here mentioned commanded a sloop in the India Company's service, about the year 1774. His scale is very large, and consequently I have been enabled to view this bay more distinctly than in d'Anville's map, or De la Rochette's chart; and had I been possessed of Capt. Cook's chart when I described the Bay Avalites (p. 115.), I should not have been at a loss to assign its form and limits: it appears there in perfect conformity with the Periplus. Such is the advantage of a large scale, and such is the correspondence of mo-

dern intelligence with ancient authorities, when we can obtain it in detail.

¹⁵³ De la Rochette marks this bay, and adds, that it is still navigable by boats; a sufficient proof that it was practicable for an Egyptian fleet seventeen centuries ago.

¹⁵⁴ Between Cape St. Antony and Babel Mandeb the land is low along shore, forming a deep bay, which makes the Cape (Babel Mandeb) appear detached. *Oriental Navigator*, p. 152.

¹⁵⁵ Having passed the strait, it is necessary to anchor: you must shut up the straits, and anchor a little to the northward of Cape Babel-Mandeb, where the water is *always smooth*. *Oriental Navigator*, p. 152.—*N. B.* This is at the entrance of the Bay of Okêlis.

X. STRAITS OF BAB-EL-MANDEB, ANCIENT NAVIGATION
OF SESOSTRIS.

THE passage of the straits, and entrance into the ocean, had been considered possibly as great an achievement by the natives, on both sides of the Gulph of Arabia, as the voyage of Hercules through the Straits of Gades to the Garden of the Hesperides, by the Greeks. Fabulous accounts consequently attached to both; and the passing of Bab-el-Mandeb was as naturally attributed to Sesostris, as the voyage through the Straits of Gibraltar to Hercules. Diodorus says, that Sesostris¹⁵⁶ sent a fleet of four hundred ships into the Erythræan Sea, and subdued the islands, and all the maritime countries as far as India. Herodotus is much more moderate; and mentions only, that Sesostris commenced his expedition from the Gulph of Arabia, and subdued the nations bordering on the Erythræan Sea, till he met with shoals¹⁵⁷, which opposed the farther progress of his fleet.

But as we are now arrived at the straits, I shall introduce a table comprizing the most material authorities of the ancients, compared with each other, and with the different conclusions of the moderns. A final decision on the points disputed, or actual precision in the present attempt, are not to be expected; but a probable adjustment of near twenty names to their respective positions, will afford the reader a general view, which will enable him to form a judgment for himself.

¹⁵⁶ Diod. lib. i. p. 64. ed. Wesscl.

¹⁵⁷ Herod. lib. ii. p. 149. ed. Wesscl.

TABLE

TABLE of PTOLÉMY'S Catalogue for the Eastern Side of the Gulph of Arabia, compared with other Geographers, ancient and modern.

The first Latitude of Ptolemy is according to the Latin Text; the second, according to the Greek.

* Denotes Positions supposed to be ascertained. R. Latitudes from De la Rochette.

PTOLÉMY.	AGATHARCHIDES.	DIODORUS.	STRABO.	D'ANVILLE.	GOSSELLIN.	PERIPLUS.
I. Klusma Garrifon 28° 50' 28° 10'		Icthyophagi, lib. 3. c. 40. p. 208. in whose country the sea retreated. Troglodytes.		Clyfma 29° 27' Philahirothi Sicard.		* Clyfma 29° 40' R.
II. Arsinoë 29° 10' 29° 20'		Posidon. Under this name Diodorus comprehends the sea of Suez.		Arsinoë 29° 46' Cleopatriis. Suez.	Clyfma. Suez. Colzum.	* Suez 29° 58' R.
III.	Phoenicôn.	Phoenicôn.	Phoenicôn.	Elim. of Exod. xxv. 27. el Tor. 28° 10'	Elim. Tor. Raithum.	* Tor 28° 11' R.
IV.	Néffa is not an Island in Agatharchides	Island of Phocæ, described with the properties of Néffa.	Island of Phocæ.	El Cab.	Sheduwan.	* Sheduwan Island 27° 24' R.
V. Pharan - 28° 30' 28° 10'	Promontory.	Promontory.	Promontory.	Ras Mahomed.	Ras Mahomed.	* Ras Mahomed 27° 47' 5" R.
VI. Elana - 29° 0' 28° 15' City - 26° 15' 29° 15'	Laianitick Gulph.	Laianitick Gulph.	Elanitick Gulph.	Aila. Elath. Haula. 29 30'	Aila Acaba Ila.	* Elath 29° 15' 5" R.
VII.				Acaba. Ezion Geber.	Acaba.	* Acaba 29° 10' R.
VIII. Onnè 28° 40' 28° 30'						
IX. Modiana 27° 45' 27° 45'	Batmizominis.	Banizomenes.	Hunters.	Magar Schuaib. Jethro the Midianite	Magar Schouaib.	* Madian or Midian.
X. Hippos, Mount 27° 20' Town 26° 40' 26° 10'					Bull's Horns. Irwin. But S. of Moilah.	Bull's Horns. Irwin. p. 143. vol i. oct.
XI. Phenicôn 26° 20' 26° 20'				Calaat el Moilah.	Moilah. Leukè Komè.	* Leukè Komè. White Village. 27° 56' R.
XII.	Three Islands: 1. Sacred to Isis. 2. Sookabua. 3. Salydo.	Three Islands. One sacred to Isis.	Three Islands.			* Three Islands. Irwin 28° 4' - R. 1. Tiran. 2. Barkan. 3. Sanafer.
XIII. Rhaunathi Village 25° 40' 25° 40'	Dangerous coast, ends at Hassan, lat 25° R.	Dangerous coast. Echinades.	Dangerous coast, 1000 fathoms.	Rounic.	Dangerous coast.	* Dangerous coast. Kauraites.
XIV.				Hawr. White Village, 25° d' Anville.		Hawr, same lat. as Hassan Id 25° R.
XV. Cherfonese Promontory 25° 20' 25° 20'	Coast with water.	Cherfonesus.	Cherfonesus.	Ras Edom 24° 5'	Ras Uned 25° 40' possibly Ras Mahar 24° 32' R.	Ras Reghab? lat. 24° 13' R. under which, Jeraboop harbour of Irwin.

24° 32' R.

25° 20' 25° 20'

XXVIII. Arga Village 22° 40' 22° 20'						Kabagu Gadirkom 22° 50'		Tsafra ? 23° 30' R.
XXIX. Zaaram Capital 22° 0' 22° 0'								
XX. Kentos Village 21° 30' 21° 30'						Giddah.		
XXI. Thebæ City - 21° 0' 21° 0'		Dedebeæ.	Debeæ.	Province of Mekka. Maco-raba of Ptol'y 22° 0'		Mekkans.	* Mekka 21° 32' R. Province of Mekka. Mecca, lat. 21° 40'	
XXII. Bætiæ River 20° 40' 20° 20'				Bardilloi.		Sockia.	* River Charles. Ibhar Obhar 21° 39' R.	
XXIII				Giddah 21° 34' Port of Mekka.			* Giddah. Port of Macoraba.	
XXIV. Badeo Capital 20° 15' 20° 20'				Ras Bad. Avad 21° 25'		Serrain.	Giddah Head 21° 28' R.	
XXV. Ambe City - 19° 10' 19° 30'							Gedan ? Ziden ?	
XXVI. Kaffanites	Alilæi. Kaffandrini.	Gafandæis. Alilæi.		Ghezan 16° 48' R.		Beni Halil.	Gedan, or Ziden, 20° 44' R.	
XXVII. Mámala Village 18° 10' 18° 10'							Ras Hali ? 18° 0' Limit of Hejaz and Yemen 18° 37' R.	
XXVIII. Adédi Village 17° 10' 17° 10'							Callanites terminate perhaps at Ras Ghefan.	
XXIX. Elifari on the coast. Minzi inland.							Elifari commence from about Ras Ghezan, lat. 16° 30' to Mo'za.	
XXX. Puani City - 16° 30' 16° 10'								
XXXI. Pudni City 16° 30' 16° 10'								
XXXII. Æli Village 15° 30' 15° 10'				Ras Hali, lat. 19° 0'		Loheia 15° 30'	Bay below Loheia ? Island Gebel Tar 15° 10' 15° 40' R.	
XXXIII. Napegus Village 15° 0' 15° 0'							Hodeida ? resembles Adedi in found, but not in position.	
XXXIV. Sacatia City 14° 30' 14° 30'							Al Sharga ? Island Gebir Zekir 13° 50' 14° 0' R.	
XXXV. Moofa Mart 14° 0' 14° 0'				Mooka.		Muza, from Niebuhr 6 leagues inland	* Muza 13° 0' Mokha 13° 18' R.	
XXXVI. Sossippi Port 13° 0' 13° 0'								
XXXVII. Pseud Okélis 12° 30' 12° 30'								
XXXVIII. Okélis - 12° 0' 12° 0'				Ghella.		Ghella.	* Ghella Bay 12° 48' R.	
XXXIX. Palindromos Prem' 11° 40' 11° 20'				Bab-el-Mandeb.		Bab-el-Mandeb 12° 39' 20" Bruce.	* The Babs. Pilot's 11° 12' 44' R.	

If the shoals of Heródotus have any foundation in fact, they are connected with the Bay Avalites¹⁵⁸, on the African shore, immediately beyond the straits, where mention is made both by Strabo and the Periplus, that the vessels employed in later ages put their lading into boats in order to trade with the natives; but this is hardly intended by Heródotus, though his description has confined him within narrower limits than those of Diodôrus.

This, however, we obtain at least from the account before us, that in the age of Heródotus it was a prevailing opinion, that the passage had been made in the most remote ages; and if the Egyptians ever were navigators, there can be no objection to admit them into a participation of the commerce with Arabia, or extending that commerce as far as the Arabians did towards the east. Few other historical documents, however, of the fact appear, farther than may be collected from the circumstances here recorded, and these are both few and deficient.

To what extent the passage of the straits, and progressively, the voyage to India, were accomplished, has been already sufficiently shewn; but that it was always considered as a most extraordinary attempt by all those who had not personally made it, we want no other testimony than that of Arrian, the historian of Alexander. He asserts, that no one had gone round the whole coast, from the Arabian into the Persian¹⁵⁹ Gulph, though perhaps some few had passed from one to the other by striking out into the open sea¹⁶⁰.

¹⁵⁸ Perhaps the Safus of Cosmas, but dubious; for his Safus seems to be rather on the coast of Adel, or Barbaria. See Melch. Thevenot, p. 7. Cosmas.

for the western coast of the Gulph of Persia has been little visited. Capt. Hamilton's is the best account I have seen.

¹⁶⁰ Lib. viii. p. 358. ed. Gronov. See the note of Gronovius on this passage, p. 356.

Now

Now Arrian lived in the reign of Adrian; and Hippalus had laid open the track to India, at least fourscore years before Arrian wrote: so little was known in the northern part of the empire of what was going on in the south.

Okêlis was not a mart of commerce, but a bay with good anchorage, and well supplied with water: it was subject to Cholêbus¹⁶¹. The neighbouring headland of Bab-el-Mandeb, which forms the entrance of the straits, is placed in lat. $12^{\circ} 39' 20''$ by Bruce, and the straits themselves are said to be only sixty stadia, or seven miles and a half wide, or six miles, if we reckon ten stadia to the mile. This is very near the truth, if we measure from Bab-el-Mandeb to Perim, which the Periplûs calls the Island of Diodôrus; while the whole breadth, from the Arabian to the African side, is nearly five-and-twenty¹⁶². Perim, or Mehun, was taken possession of by the British, when the French were in Egypt, and begun to be fortified; but it has no water. It is not the only island in the straits; for there is another called Pilot's Island, close to the Arabian shore; and on the African side eight more, bearing the name of Agesteen.

The wind in this passage is described as violent, from its confinement between the high lands on both sides; and the opening of the straits gradually towards Fartaque and Gardefan, is strongly¹⁶³ marked in the Periplûs.

The first place to which we are directed beyond the straits, is a village called Arabia Felix: its distance is estimated at an hundred and twenty miles from Okêlis; and it was formerly a city of im-

¹⁶¹ Κώμη τῆς αὐτῆς τυράννης; of the Usurper's Country.

¹⁶² Bruce conjectures six leagues. Cook's Chart makes it near 25 miles. Bruce, i. 315.

¹⁶³ Ἀνογομένης πάλιν τῆς θαλάσσης εἰς ἀνατολὴν καὶ κατὰ ΜΙΚΡΟΝ εἰς πέρατος ἀποφαινομένης opening by degrees from the straits to the two capes.

portance before ¹⁶⁴ the fleets passed from India to Egypt, or from Egypt to the countries towards the East ¹⁶⁵. Previous to that time, the fleets from Egypt and the East met in this harbour, which was the centre of the commerce, as Alexandria was afterwards for all that passed through Egypt into the Mediterranean. This harbour was more commodious than Okêlis, and afforded better anchorage, as well as better convenience for watering, than Okêlis. The town stands at the entrance of the bay, and the retiring of the land inwards affords protection to the shipping. Reduced as it was in the author's age, by the different channel into which the commerce had been directed, the village was subject to Charibâel, and had within a few years been taken and destroyed by the Romans.

XI. A D E N.

EVERY circumstance in this minute description directs us to Aden: the distance, the harbour, and the name ¹⁶⁶, all correspond; and the peculiarity of its being under Charibâel, while Okêlis was possessed by Cholêbus, marks the extent of the Homerite dominions, surrounding Maphartis in the angle of the peninsula. The native sheiks, or heads of tribes, at the present day, are perfect representatives of Cholêbus. When Niebuhr was in Arabia, the sheik of

¹⁶⁴ Εἰς τὰς ἰσθμὸς τῶν ὁρίων.

¹⁶⁵ In the middle ages, the India trade had reverted into its original course: Ex ipsa solvuntur navigia Sindæ, Indiæ, et Sinarum, et ad ipsam deferuntur vasa Sinica. Al Edrissi, p. 25.

The Arabs distinguish between Cheen and

Ma-Cheen: the first is Cochin China; and the other, China. The porcelain mentioned seems to imply, that *Sinarum* used here means the real Chinese, and that they traded so far west in that age. Sindæ and Indiæ express Scindi and Hindostan.

¹⁶⁶ Aden signifies deliciæ. Huet.

Aden was no longer subject to the Imam of Sana, but had asserted his independence, and possessed a small territory in the neighbourhood of the city.

The capture also and destruction of this village by the Romans, a short time previous to the author's age, would be a natural consequence of the progress and extension of the Roman commerce from the Red Sea to India; and, as Claudius collected a tribute from the maritime towns of Arabia, it is natural to suppose that he was the Cesar mentioned in the *Periplus*, who ordered this place to be destroyed, for the purpose of suppressing every power that might interfere with the Roman commerce, or divert a share of it into its ancient channel. It is true this must have been an act of oppression upon Charibael, who was the ally and friend of the Roman emperors; but far greater sacrifices of their justice to their ambition occur in the history of those sovereigns of the world. Was it not the same policy which induced Soliman, emperor of the Turks, when he sent Soliman Pacha from the Red Sea to suppress the rising power of the Portuguese in India; when, under pretence of delivering the Mahomedan Powers from this new and unexpected intrusion of the Christians, he employed the forces which had been collected on the occasion in seizing on the maritime towns of Arabia? It was then that Soliman Pacha obtained possession of Aden by treachery, and hanged the sheik at the yard-arm of his ship¹⁶⁷.

I conjecture that it was Aden which Agatharchides describes without a name, when he places a city on his White Sea without

¹⁶⁷ *Viaggio di un comito Venetiano.* Ra. Soliman Pacha. He was present at the execution of the sheik, and describes the Indian

This Venetian captain was put in requisition trade at Aden as then consisting of only three at Alexandria, and sent to Suez to serve under or four spice ships in a year.

the straits; from whence, he says, the Sabæans sent out colonies or factories into India, and where the fleets from Persis, Carmania, and the Indus, arrived. He specifies large ships employed for this purpose; and though his mention of islands may suggest an idea of Socotra, Curia Muria, and the coast of Oman, it seems far more probable that his intelligence was imperfect, and that these fleets, which he describes, must have been found in the same port which the Periplus assigns them, as long as the monopoly continued in the hands of the Sabæans.

The testimony of Agatharchides is, in one point, highly important; for it is the first historical evidence to prove the establishment of Arabian colonists, or rather resident factors and merchants, in the ports of India: it is a fact in harmony with all that we collect in later periods, from Pliny, and the Periplus, and Cosmas; and we may from analogy conclude, that it was equally true in ages antecedent to Agatharchides; that is, as early as we can suppose the Arabians to have reached India. The settlement of their own agents in the country was most convenient and profitable, while the manners and religion of India created no obstacle to the system.

In the middle ages, when the power of the Romans was extinguished, and the Mahomedans were possessed of Egypt, Aden resumed its rank as the centre of the trade between India and the Red Sea. The ships which came from the East were large, like those which Agatharchides describes: they did not pass the straits, but landed their cargoes at this port, where the *trankies*¹⁶⁸ or *germes* of the Arabs, which brought the produce of Europe, Syria, and Egypt,

¹⁶⁸ M. Polo uses the expression *Zerme*. The stance, that the ships from the East did not enter the Red Sea.

received the precious commodities of the East, and conveyed them either to Affab, Kofir, or Jidda; when all that passed into Europe, still came to Alexandria, and enriched the Soldan's dominions by the duties levied, and the profits of the transit. In this situation, Marco Polo found Aden¹⁶⁹ in the thirteenth century; and the account he gives of the wealth, power, and influence of Aden, is almost as magnificent as that which Agatharchides attributed to the Sabéans in the time of the Ptolemies, when the trade was carried on in the same manner.

So far as the identity of Aden and Arabia Felix, there is neither difficulty nor disagreement; but upon the remainder of this extensive coast, from Aden to the Gulph of Persia, there will be few positions in the following detail which will accord with d'Anville's arrangement, or with that of other commentators who have bestowed their attention upon the Periplus.

XII. ARRANGEMENT OF THE COAST OF ARABIA ON THE OCEAN.

THE circumstance upon which the whole depends, is the adjustment of Syágros. In common with others, I had supposed its representative to be the modern Ras-el-had; and there is so much to induce this opinion, that I abandoned it with great reluctance, and shall perhaps find great difficulty in persuading others that it is erroneous.

The Periplus notices Syágros as pointing to the East, and as the greatest promontory in the world. Omana likewise is men-

¹⁶⁹ M. Polo, lib. iii. c. 39. the soldan of Aden at the siege of Acre, in the year 1200. Such a
sent 30,000 horse and 40,000 camels, to assist soldan as this might be the Imam of Sana.

tioned with it, answering to the present Oman; and Moscha, seemingly identified with Maskat, the principal port of that province. Under the influence of these resemblances and probabilities, if I had joined in the common suffrage, and called Syágros Ras-el-had in my former publications, wherever it occurred, it is conviction alone, and the abandonment of system for truth, which compels me to recall the error, and acknowledge that Syágros is not Ras-el-had, but Fartaque.

This is a concession not made for the purpose of particular accommodation, but grounded on a general analysis of all the positions on the coast, on a combination of all the circumstances relative to the division of the provinces; and upon a painful re-consideration of all that was to be undone, and unsettled, after I had fixed my opinions upon the authority of the best writers, who had preceded me on the subject.

The reader will expect proofs; and the proofs are, that the islands round the whole extent of the coast on the ocean will now fall naturally into their places, which cannot be effected by any other arrangement. The islands in Ptolemy will become relatively consistent with those of the Periplus; and the Bay Sachalites, which Ptolemy has been accused of transposing from the west to the east of Syágros, is reduced to the different application of a name, instead of a difference in point of situation.

Sachalites is universally allowed to be the Greek form of expressing the Arabick Sahar¹⁷⁰. Now there are two Sahars on the

¹⁷⁰ Sahar becomes Sachar by enforcing the sound of the aspirate, and the change of the final r is analogous in a variety of instances; thus, Degel formed into Deger, is the river

Tigris of the Greeks; and Sinus Sachal-ites is equivalent to Sachar-ites, the bay of Sachar or Sahar.

coast of Arabia: one that is almost central between Aden and Fartaque; and another that lies to the east of Fartaque, between that cape and Cape Morebat or Merbat¹⁷¹. In the first¹⁷² of these there is little variation of orthography; but the other is written Schæhr, Schahr¹⁷³, Shahar, Cheer¹⁷⁴, and Seger. They are both frequented as places of trade to this day. And if we suppose that the first Sahar is the Sachalites of the Periplûs, and the second Shahar, the Sachalites of Ptolemy, the Syágros of Ptolemy will answer to Fartaque as well as the Syágros of the Periplûs, and the two authors will be in harmony with each other.

Further proofs of this reconciliation will be given in our progress along the coast, and some difficulties that attend it will be acknowledged; but if it should be admissible or probable upon the whole, much indulgence is due in regard to inferior objections; as, upon the first view of the coast before us, no two accounts can seem more irreconcilable to each other than those of Ptolemy and the Periplûs.

¹⁷¹ Cape Merbat, called Morebat and Marabout in our charts, is a headland much noticed by our English navigators: it is one of the principal sources of frankincense; for Al Edrissi says, in montibus Merbat nascuntur arbores thuris quod deinde in omnes Orientis et Occidentis partes defertur. It is four days, or an hundred miles, from Hasec, and consequently in the very heart of the district, which is the Sachalites of Ptolemy. I observe in some authors a division of the coast into Thurifera Regio, Prior and Ulterior: if this is founded, the Prior would be previous to Fartaque, and the Ulterior to the eastward of it; the first would be the Sachalites of the Periplûs, and the latter the Sachalites of Ptolemy; and respectively, the Hadramaut and Seger of Al Edrissi. But I rather think the distinction

modern, at least I have not yet met with it in any ancient author. See Al Edrissi, p. 27.

¹⁷² The first Sahar is meant by Niebuhr, as he places it in the province of Jafa, which lies between Aden and Hadramaut; and he writes it Schähr, Arabie. Tom. ii. p. 125. French edition.—It is likewise the Escier of Marco Polo, 40 miles from Aden. Lib. iii. c. 40.

¹⁷³ In the French Voyage, by La Roque 1716, which, with the French pronunciation, is our English Schæhr, pronounced Share.

¹⁷⁴ Renaudot's Arab calls it Sihar or Shihr, which is the English Sheer. The produce, he says, is frankincense. The ships of Siraf go to Jidda, but never farther in the Red Sea. Their cargoes are conveyed to Egypt in ships of Colsum, the Red Sea, p. 93.

XIII. K A N È.

THE first port to which we are to proceed from Aden, is Kanè¹⁷⁵; the distance is stated at two thousand stadia or more, upon a length of coast inhabited by Bedouins and Ichthyophagi; and if we estimate the number of stadia at two hundred miles, the termination falls very nearly at the Cava Canim of d'Anville, or at Maculla Bay, which lies a very few miles to the eastward. Our charts take notice of both; and at Cava Canim, which is inserted principally upon the authority of d'Anville, there appear some islets, which may be Orneôn¹⁷⁶ and Troolla, described as desert isles by the Periplus; and which, if they exist, identify Cava Canim for Kanè, in preference to Maculla. In point of distance, either is sufficiently exact to answer the purpose; for Maculla is sixty¹⁷⁷ leagues from Aden, and Cava Canim eight or ten miles short of that bay.

Kanè is represented as a port of considerable trade, subject to Eleázus, king of the Incense country, who resided at Sabbathath, the principal city of the district, which lies at some distance inland. At Kanè is collected all the incense that is produced in the country, and which is conveyed hither both by land and sea, either by means

¹⁷⁵ I have not been without suspicion, that Kanè might be Keschin, which I have found written Cassin; that is, Kâsin in Oriental pronunciation. But I have the name only to guide me to this suspicion; for Keschin would not agree with the distance from Aden, or to C. Fartaque, or with the Bay Sachalites of the Periplus. Neither have I yet found, in any map or narrative, two islands off Keschin, to correspond with Orneôn and Troolla.

Islands, rivers, mountains, and promontories, are our surest guides.

¹⁷⁶ Orneôn is Bird Island, so called perhaps from the universal habit of sea fowls resorting to desert islets; and Troolla has no meaning in Greek. It is said to lie 120 stadia from Kanè, of which I can find no trace.

¹⁷⁷ Sixty leagues, or 180 geographical miles, are equal to 268 miles English. See Oriental Navigator, p. 162.

of caravans, or in the vessels of the country, which are floats supported upon inflated skins¹⁷⁸. Sabbatha is supposed by most of the commentators to be Schibam or Scebam, which Al Edrissi places in Hadramaut, at four stations, or an hundred miles, from Mareb: a certain proof that we have adopted the right Sahar for the Periplûs; because Mareb cannot be within *three* hundred miles of the Eastern Sahar, or Seger; and Seger is not considered by Al Edrissi as a part¹⁷⁹ of Hadramaut, but as a separate district.

It is remarkable that the author of the Periplûs, who notices Sabêa and Oman by name, makes no mention of Hadramaut, the third general division of the coast, but distinguishes it only by the title of the Incense country. To maintain that these are the three general divisions of Arabia on the Indian Ocean, is consonant to all the evidence we have, ancient and modern; neither do independent districts or sheiks, as those of Keschin, Seger, or Mahra, interfere with this distribution. And that we are equally correct in assigning the Western Sahar to Hadramaut, is capable of proof; for Al Edrissi says, from Aden to Hadramaut, which lies to the east of Aden, are five¹⁸⁰ stations. If therefore we observe, that at Kanè we are already two hundred miles east of Aden, we are advanced far enough to shew that we are in Hadramaut¹⁸¹, and that the Western Sahar is properly placed in that province.

¹⁷⁸ These floats are noticed by Agatharchides, and are by some supposed to give name to a tract inhabited by Ascites, from *Ascites*, Uter.

¹⁷⁹ *Terræ Hadramaut contermina est ab oriente terra Seger.* P. 53.

¹⁸⁰ *Ab Aden autem ad Hadramant quæ jacet ab orientali latere ipsius Aden, stationes quinque.* P. 26.

¹⁸¹ Ptolemy makes Kanè the emporium of Hadramaut.

At Kanè likewise, as there was an established intercourse with the countries eastward¹⁸²; that is, with Barugaza, Scindi, Oman, and Persis¹⁸³; so was there a considerable importation from Egypt, consisting of the following articles:

Πυρὸς ὀλίγος,	-	-	-	A small quantity of Wheat.
Οἶνος,	-	-	-	Wine.
Ἰματισμὸς ¹⁸⁴ Αραβικὸς,	-	-	-	Cloths for the Arabian market.
κοινὸς,	-	-	-	Common sort.
ἀπλῆς,	-	-	-	Plain.
νόθος περισσότερος,	-	-	-	Mixed or adulterated, in great quantities.
Χαλκὸς,	-	-	-	Brass.
Κασσίτερος,	-	-	-	Tin.
Κοράλιον,	-	-	-	Coral.
Στύραξ,	-	-	-	Storax, a resin.

And many other articles, the same as are usually imported at Mooza. Besides these also, there are brought

Ἀργυρώματα τετορευμένα,	-	-	-	Plate wrought, and
Χρήματα τῷ βασιλεῖ,	-	-	-	Specie for the king.
Ἴπποι,	-	-	-	Horses.
Ἀνδριάντες,	-	-	-	Carved Images.
Ἰματισμὸς διαφόρος ¹⁸⁵ ἀπλῆς,	-	-	-	Plain Cloth, of a superior quality.

¹⁸² Τῶν πέραν ἑμπορίων, I had supposed to mean the marts only on the coast of Africa beyond the straits; but, from the usage here, the expression is evidently extended to all ports beyond the straits, not only in Africa, but in India and the Gulph of Persia.

¹⁸³ Τῆς παρακειμένης Περσίδος, is the coast of Persia opposite to Oman.

¹⁸⁴ Not cloth of Arabia, but for the Arabian market; so we say in the mercantile language of our own country, Cassimeer cloth; that is, cloth for the market of Cassimeer. And the word ἰματισμὸς seems to imply, that the cloth was made up into garments.

¹⁸⁵ Apparently in opposition to Κοινὸς.

The exports are the native produce of the country :

Λίβανος, - - - Frankincense.

Ἄλός, - - - Aloes.

and various commodities, the same as are found in the other markets of the coast. The best season for the voyage is in Thoth, or September*.

After leaving Kanè, the land trends inward, and there is a very deep bay called Sachalites, that is, the Bay of Sachal or Sachar, and of a very great extent. The promontory (which is at the termination) of this is called Syágros, which fronts towards the east, and is the largest promontory in the world. Here there is a garrison for the protection of the place, and the harbour is the repository of all the Incense that is collected in the country.

XIV. BAY SACHALITES, HADRAMAUT.

THIS bay of Sachal has already been asserted to be Sahar; and this Sahar, or "Shahar"¹⁶⁶, appears to be a fine town at the present day, situated by the sea-side; and it may be seen five or six leagues off. The point of Shahar is twelve or thirteen leagues "from Maculla Bay;" while the coast, with various curves, but no indenture so great as the Periplus requires, stretches E.N.E. to Cape Fartaque"¹⁶⁷; and that this Fartaque is Syágros, is the point now to be proved.

¹⁶⁶ Oriental Navigator, p. 152. ¹⁶⁷ Written Fartak, Fartakh, Fartash.

* I request the Reader to correct an error on this subject, p. 288. supra, where it was said, that the season was the latter part of August, and connected with the voyage to Muziris. I now find, that the voyage to the southern coast of Arabia was a distinct navigation. They might make it earlier; but they sailed later in the season, that they might have less time to wait for the easterly monsoon in November.

And first, that it points to the east is true ; but it is not true that it is the largest promontory in the world ; for Ras-el-had, on the same coast, is larger. But it is more conspicuous, and was of more importance, probably, in the author's view, as forming the great entrance to the Gulph of Arabia, in conjunction with Cape Arômata on the coast of Africa ; and as such, it is still a point of most material consequence in the opinion of modern navigators, as well as in that of the ancients.

A second proof is, that Socotra is said to lie between this cape and Arômata ; which, in one respect, is true, and cannot be applied to Ras-el-had. And a third is, that the islands of Curia Muria, and Mazeira, are to the east of this cape, as they really lie ; while, if Syágros were fixed at Ras-el-had, the islands must lie on the west of the Cape, directly transposed from their real position to an erroneous one. But of this we shall treat in its place. We must now return to Sahar, which is considered in the Periplûs as the heart of the Incense country, and the Incense country is Hadramaut.

Hadramaut is the Hatzar-maveth of Genesis, which signifies¹⁰⁰ in Hebrew, the Court of Death ; and in Arabick, the Region of Death ; both names perfectly appropriate, according to the testimony of the Periplûs, which informs us, “ that the incense is collected by
“ the king's slaves, or by malefactors condemned to this service as
“ a punishment. The country is unhealthy in the extreme ; pesti-
“ lential even to those who sail along the coast, and mortal to the
“ wretched sufferers employed in collecting the frankincense ; who
“ perish likewise as often by want [and neglect] as by the pernicious influence of the climate. The country inland is mountainous, and difficult of access ; the air foggy, and loaded with

¹⁰⁰ Bochart Phaleg. p. 101.

“ vapours

“vapours caused [as it is supposed] by the noxious exhalations
“from the trees that bear the incense; the tree itself is small and
“low, from the bark of which the incense” exudes, as gum does
“from several of our” trees in Egypt.”

The conveyance of this drug by land, Pliny informs us, was through Thomna, the capital of the Gebanites, to Gaza on the coast of Palestine, by a caravan that was sixty-two days in its progress; and that the length of this journey, with the duties, frauds, and impositions on it, brought every camel's load to upwards of two-and-twenty pounds, English; and a pound of the best sort at Rome, to more than ten shillings. The course of this conveyance is not easy to comprehend⁹⁰; for if the commodity passed by a caravan, the Minæans were central, and the usual carriers from Gerrha on the Gulph of Persia, from Hadramaut also, and from Sabæa, to Petra in Idumæa. But we must not understand this as excluding the conveyance of the incense to Alexandria by the Red Sea; for that city was the great repository of this, as well as

¹⁸⁹ It has been observed already from Niebuhr, that the best incense is now procured from India, by far more clear, white, and pure, than the Arabian; and it is a circumstance well worth inquiry, whether the collection of this gum is attended with the same fatal effects in that country as are here described; and whether the consequences are deducible from the drug itself, or from the nature of the country. Those who are desirous of learning more than is here remarked on this subject, may consult Pliny, lib. 12. c. 14. and Salmasius, 48^a, et seq.

¹⁵⁰ Ως τὴν καὶ τὴν κατὰ ἡμᾶς ἐν Ἀργυρίῳ δεικνύει.
This is an expression so clearly marking the country of the writer, that it cannot be mis-

taken; and the whole description is not that of a man who merely wrote upon the subject, but of one who had visited the country, and painted what he saw.

191 Bochart places Thomna between Sabbathatha and Mariaba, and supposes the Katabéni and Gebanitzæ to be the same people; which they are; for Pliny makes Ocila (Okêlis) a port of the Gebanites, xii. 13. : but if so, it is the territory of Maphartis he must place them in; and they would not move by caravans, but by sea. Strabo, however, makes Tamna the capital of the Katabéni, p. 768. ; and his Katabéni are not between Sabbathatha and Mariaba, but in the territory of Maphartis.

all

all the other produce of India and Arabia. Pliny¹⁹² mentions this particularly, and notices the precautions taken by the merchants of that city to prevent fraud and adulteration.

The Periplus does not advert to any particular spot in this bay, or specify any town of Sachal; but, after relating the circumstances as they are here stated, proceeds directly to Syágros. Syágros, or the Wild Boar, would naturally induce a persuasion that it was a nautical appellation, like the Ram Head¹⁹³, Dun Nose, &c.; but it is far more probably to be, like Phenicon in the Red Sea, derived from the palm-trees observed there, of a particular species, called Syágros: they are of a superior sort¹⁹⁴, as Pliny informs us, with large fruit, hard, and rough in appearance, and with a high relish of the flavour of *wild boar*. What this flavour is, we may leave to the naturalists to determine; but the allusion to Syágros is manifest; and that the Cape takes its name from its produce, is a natural conclusion. That this promontory is actually Cape Fartaque, cannot be doubted, if we now advert to the particulars connected with it; for we are told, that the island of Dioskórída lies between this point and Cape Arômata, or Gardefan, on the coast of Africa; that it is at a considerable distance in the open sea, but nearer to Syágros than to the Cape opposite; and that it is a large island, far exceeding all the others that appertain to the coast of Arabia.

Now although this account is not strictly accurate, for Socotra is not actually between the two capes, but forms a terminating point,

¹⁹² Lib. xii. 14.

¹⁹³ So *Kpis* *μυρωτον* in Crete.

¹⁹⁴ De Palmis. In meridiano orbe præcipuam obtinent nobilitatem Syagri.
ipsum pomum grande, durum, horridum,
et a cæteris generibus distans sapore ferino,

quem ferme in *apris* novimus. Plin. xiii. 4.

It is not the coco-nut palm; for, among his forty-nine species, Pliny afterwards mentions the Cycas (*Κύκας*) pomo rotundo, majore quam mali amplitudine.

to Cape Gardafan, like our Scilly Islands to the Land's End, and is consequently nearer Africa than Arabia; still, speaking generally, the description in other respects is sufficiently correct. The most transient reference to the map will at least prove, that none of these circumstances can be applied to Ras-el-had; for that cape lies almost seven hundred miles farther to the north-east, and can hardly be said, in any sense, to be *opposite* to Gardafan, but by drawing a line of such extreme obliquity, as would never occur to the mind of a mariner under the idea of an *opposite* promontory.

XV. DIOSCORIDA, OR SOCOTRA.

DIOSCORIDA, Dioscorides, Dioscūrias, or Diōscora, may have a Greek origin, but it has so near a resemblance to Socotra or Zocotora, that it is much more likely to be a nautical corruption of an Arabick term, than the application of a Greek one.

This island is near an hundred miles long, and thirty at its greatest breadth: it was inhabited only on the northern¹⁹⁵ side in our author's age, and the population there was very scanty, consisting of a mixture of Arabians, Indians, and Greeks, who had resorted hither for

¹⁹⁵ In the French Voyage published by La Roque, 1716, Paris—Tamarin, the capital of the island, was still on the north side. He mentions also, that it was subject to the sheik of Fartaque, the same probably as the sheik of Kefin; though he calls Fartaque the capital, and Seger, or Schœhr, the port (p. 151). The French obtained here aloes, at eight piastres the quintal of 95 pounds; besides frankincense, civet, and gum dragon. Tamarin

was a well-built town. There are two voyages contained in this work; and in the second, a party went up from Mokha to Sana, who speak well of the Arabs, and the Imam's government. It is a curious work, well digested and put together; and the more worthy of consideration, as I know of no other Europeans who have been at Sana, except Barthema and Niebuhr.

the purposes of commerce ; while the remainder of the country was marshy and deserted. Marco Polo informs us, that in his time the inhabitants were Christians ; and Al Edrissi confirms this, with the addition, that the Greeks were introduced there by Alexander ¹⁹⁶, at the request of Aristotle ¹⁹⁷, in hopes of obtaining aloes, the principal produce of the island, and of the best quality that is known. Now it is remarkable, that aloes is not mentioned by the author of the *Periplus* ; but he notices particularly the drug called Indian ¹⁹⁸ cinnabar, which exudes from a certain species of trees, and tortoise-shell, of the largest size and best sort ; adding, that there is likewise the mountain or land-tortoise, which has the lower shell of a ruddy yellow, and too hard to be cut ; and that from the solid part of this were formed cases ¹⁹⁹, boxes, and writing-tablets [of great value].

¹⁹⁶ When he was returning, says Al Edrissi, from the Persian Gulph to the Gulph of Arabia : which, unfortunately, he never did ; and equally unfortunate is he in the reason he assigns for the inhabitants being Christians, because Alexander planted Greeks there.

Cosmas Indicopleustes says, they were Greeks from Egypt ; he was not at the island, but conversed with some of the natives in Ethiopia : they were Christians, and their priests were from Persia, that is, they were Nestorians. Bayer Hist. Bact. p. 111. in Montfaucon's Edit. of Cosmas, p. 179.

Marco Polo says, in Mosul on the Tigris, hanno un patriarcha che chiamano Jacolit (catholico) il qual ordina Arci Vescovi, Vescovi, & Abbati, mandandoli per tutti le partie dell India & Al Cairo, et in Baldach (Bagdat), & per tutte le bande dove habitano Christiani non pero secondo che commanda la

chiesa perche falla in molte cose, et sono Nestorini, Jacopiti et Armeni. Lib. i. c. 6.

¹⁹⁷ Dapper mentions aloes, ambergris, and gum dragon, &c. from a tree called Ber ; and notices the Arabs from Caxem (Keschin), and Fartaque as ruling. They are not now Christians, he says ; but have christian names, as the remains of that religion.

¹⁹⁸ The native cinnabar is a mineral ; and what is meant by Indian cinnabar that distills from trees, is not easy to determine. But I find in Chambers's Dictionary, that there has been a strange confusion between cinnabar and dragon's blood ; the dragon's blood therefore is meant, which is one of the natural productions of the island.

¹⁹⁹ Al Edrissi, speaking of the tortoise-shell at Curia Muria, says, *dorsa testudinum ex quibus conficiunt sibi incolæ Iaman paropsidea ad lavandum & pinfendum.* P. 24.

He

He informs us also, that there were several rivers²⁰⁰, and abundance of crocodiles, snakes, and large lizards; from the last of which they expressed the fat, which they used for oil, and the flesh for food: but they had neither corn nor vines. Some few merchants from Mooza visited this island; and some that frequented the coasts of India and Cambay touched here occasionally, who imported rice, corn, India cottons, and women²⁰¹ slaves, for which they received in exchange very large quantities of the native tortoise-shell.

In the author's age, this island was subject to Eleázus, the king of Sabbathath, who set the revenue to farm²⁰², but maintained a garrison for the purpose of securing his receipts and supporting his authority. This fact is similar to what we had occasion to notice on the coast of Africa, where several of the ports in Azania (or Ajan) were subject to Charibáel and Cholêbus, whose territories were in Yemen; and Niebuhr informs us, that Socotra is at this day subject to the sheik of Keschin, who has considerable possessions in Hadramaut; and Keschin, which lies a few leagues to the westward of Fartaque, cannot be very distant from the territory of Eleázus.

The consistency of these circumstances in the ancient and modern accounts, may induce a persuasion that we have traced out our way so far with certainty and precision; the next step we are to advance, is the only one on the whole coast which will raise a

²⁰⁰ The water here is very good; it runs from the mountains into a sandy valley among date trees. The natives are civil to strangers, but very poor; and the only commodity to trade with, is rice [an article in the Periplus], for which we had in exchange some cows, goats, fish, dates, good aloes, and gum dragon.

The prince, or viceroy, resides at Tamarida, on the north side of the island. Capt. Blake, *Oriental Navigator*, p. 149.

²⁰¹ Σάμαθα Ἰνδικὰ διὰ σκάνη καὶ προχρημένα; carried there, because they had few women for the harem.

²⁰² Ἡ νῆσος ἐκμισθώσεται.

doubt, and which has certainly been the source of the constant opinion embraced by modern²⁰³ geographers, that Syágros is not Fartaque, but Ras-el-had.

XVI. MOSKHA AND ÓMANA.

I SHALL state this circumstance in the very words of the author; for he says, "Adjoining to Syágros there is a bay which runs²⁰⁴ " deep into the main land [of] O'mana, six hundred stadia in width; " after this there are high mountainous rocks, steep to, and inha- " bited by a [wild] race, that live in caverns and hollows of the " cliff. This appearance of the coast continues for five hundred " stadia more, at the termination of which lies a harbour called " Moskha, much frequented²⁰⁵ on account of the Sachalitick incense " which is imported there."

It²⁰⁶ is the mention of Moskha and O'mana here that necessarily suggests the idea of Maskat, which is in Oman, and the principal port of trade in the province: the description of the mountainous coast is characteristic; and the distance, supposing Ras-el-had to be Syágros, not incongruous. I cannot account for this coincidence; but I do not think that Moskha is Maskat, because Maskat is beyond C. Ras-el-had; and I shall shew immediately, by the islands which succeed Moskha, that we are not yet arrived at Ras-el-had by four hundred miles. Neither will the Moskha of Ptolemy solve the diffi-

²⁰³ Bochart supposes Syágros to lie between Hadramaut and Sachalites; which is true in regard to the Sachalites of Ptolemy, and then it is Fartaque. Phaleg. 106.

²⁰⁴ Ἐπὶ βάρους ἐδύων εἰς τὴν ἡπύρον, Οἰμανα.

²⁰⁵ Ὁρμος ἀποδιδευγμένος, the appointed, the regular port.

²⁰⁶ Consult d'Anville's Memoire sur le Mer Erythrée, Academie de Belles Lettres, tom. xxxv. p. 598.

culty;

culty; for he carries it farther back than the Periplus, and has placed it to the westward of Syágros, which is his Fartaque likewise, as well as the Fartaque of our author.

The mention of O'mana here is still more unaccountable; but I was in hopes to have reconciled it by means of a river O'rmanus, or Hórmannus, which Ptolemy has in his Bay Sachalites, and which he brings down from a place called O'mana. This, however, is not to be depended upon; for his map is so distorted on this part of the coast, that it leaves the whole matter in uncertainty. One circumstance only can be deduced from it; which is, that his Ormanus and O'mana are both to the westward of Ras-el-had, as well as the O'mana and Moskha of the Periplus: the proof of which is, that they both precede his Koródamon, and Koródamon must be the representative of Ras-el-had, as it is his extreme point east of the whole peninsula.

There are no data for placing the Moskha of the Periplus, but the distance of eleven hundred stadia from Syágros; and this measure brings it nearer to Seger, the Sachalites of Ptolemy, the Schoghri of the moderns, than any other place it can be referred to. At Moskha, the mention of the Bay Sachalites is again introduced by the Periplus; for the author informs us, that throughout the whole extent of that bay, in every port, the incense lies in piles without a guard²⁰⁷ to protect it, as if it were indebted to some divine power for its security. Neither is it possible to obtain a cargo, either pub-

²⁰⁷ There is nothing very extraordinary in this: plenty of a commodity, however valuable, and familiarity with the sight of it, take off from the edge of depredation. Bars of silver lie apparently without a guard in the streets of Panama; but in Seger, besides the protection of the gods, the shik seems to keep good watch, if a single grain cannot be got off till the duty is paid.

licly or by connivance, without permission of the king. Nay, if a single grain were embarked clandestinely, good fortune indeed must the merchant have who could escape with his vessel from the harbour.

At Moskha there is a regular intercourse by sea with Kanè; and such vessels as come from Limúrikè²⁰⁸ and Barugaza, too late in the season, and are obliged to pass the adverse monsoon in this port, treat with the king's officers to obtain frankincense in exchange for their muslins, corn, and oil²⁰⁹.

If it should now be asked, whether I am myself satisfied with the account here given of O'mana and Moskha, I could not answer in the affirmative. These two names certainly throw a shade of obscurity and difficulty over the arrangement of the coast; and if this barren subject should be reviewed by a future commentator, much pleasure would it be to see those obstacles removed, which I have not been so fortunate as to surmount.

Still that, upon the whole, the assumption of Fartaque for Syágros is right, depends upon proofs now to be produced, which are incontrovertible; for we are now advancing to two groupes of islands, which are the most conspicuous of any that are attached to the coast of Arabia on the ocean; and as islands, rivers, and mountains, are features indelible, in these we cannot be mistaken.

XVII. ISLANDS OF ZENÓBIUS, OR CURIA MURIA.

At fifteen hundred stadia distance from Moskha, which I have supposed to be Seger; and at the termination of the district called

²⁰⁸ Concan and Cambay.

²⁰⁹ Probably ghee, or liquid butter.

Asikho, there are seven islands, almost in a line, called the Islands of Zenóbius. Now the distance answers to make these the islands in the Bay of Curia Muria, the Chartan²¹⁰ Martan of Al Edrissi; and though he says they are only four, and four only they appear on our charts, it is conclusive in their favour, that he styles the bay Giun-al-Hascife²¹¹; and Hasek (the Asikho of the Periplûs) is the principal town in the bay at the present hour. Hasec²¹² Al Edrissi calls it himself in another place, where he mentions only two islands, as Chartan and Martan; and says, it is a small city, but populous, and the bay deep and dangerous. The four islands have now obtained the names of Halki, Sordi, Halabi, and Deriabi; and it is possible that some rocky or deserted islets attached to them may have caused them to have been reckoned seven; for seven they are in Ptolemy also, placed in the same relative situation between Fartaque and Ras-el-had, though not correct in their vicinity to the coast.

XVIII. SARAPIS, OR MAZEIRA.

FROM Hasec, or Asikho, we have, first, a tract inhabited by a barbarous tribe²¹³, not subject to Arabia but Persis²¹⁴; and at the distance

²¹⁰ Bochart says, that by a change of the points, he reads Curian Murian for the Chartan Martan of Al Edrissi.

²¹¹ Sinus Herbarum, Al Edrissi, p. 22.—P. 27. he makes Hasec the city, and Al Hascife the bay; but are they not the same name?

²¹² Here Ptolemy places the Ascitæ, whose name he derives from ἀσκή, because they sail on floats supported on inflated skins; but this is giving a Greek derivation of an Arabick name. Bochart conjectures, with much more probability, that they are the inhabitants of

Hasek; and that Ptolemy's Mæphat is a corruption of Merbat, as it is written in Al Edrissi, the C. Morebat of our charts. Phaleg. 106.

²¹³ Ἡ ἀφ' ὧν παραπλέοντι ὡς ραδίως διασχίαντες ἀπὸ τῶν Ζηνοβίων; rendered by Hudson, Hanc ubi ex supernis locis prætervectus fueris: but ἀφ' ὧν means keeping off shore by a direct course, in opposition to περιολπιζόντι, or following the bend of the coast.

²¹⁴ This is no more extraordinary than that the sovereigns of Arabia should have territories

distance of two thousand stadia from the Islands of Zenóbius, another island called Sarápis. Sarápis, it is added, is an hundred and twenty stadia from the coast, two hundred stadia in breadth, and contains three villages, inhabited by priests, or recluses, of the Ichthyóphagi, who speak the Arabick language, and wear girdles or aprons made of the fibres of the cocoa²¹⁵. Plenty of tortoise-shell, and of a good quality, is found here, on which account it is regularly frequented by the small vessels and barks from Kané.

If we should now consult the chart, and examine the size of this island, and its distance from the isles of Zenóbius, which we may estimate by the stadia at about two hundred miles, we identify it to a certainty with Mazeira; for there is no other island of this size, or at an hundred and twenty stadia from the coast, or perhaps capable of containing three villages, any where to the westward of Fartaque, or the eastward of Ras-el-had. It must therefore lie between these two points, and precisely ascertain, that we are past the one, and not yet arrived at the other; and likewise, that the isles of Zenóbius must, by their distance and relative situation, be the Curia Muria of the present day, notwithstanding their disagreement in point of number.

Mazeira is well known to modern navigators: its size and situation are sufficiently ascertained, and there is a channel²¹⁶ between the island and the main, through which English ships have passed.

tories on the coast of Africa. In Niebuhr's time, the sheik of Abu Schahr, or Busheer, in Persia, was master of Bahrain on the western coast of the Gulph of Persia.

²¹⁵ Περὶ ζώματος φύλλων ΚΟΥΚΙΝΩΝ. We find the name of the Cocoa Palm-tree (as far as I can learn) first mentioned in this work. Pliny

had obtained it likewise. Cloth is still made of the fibres of the nut: whether the leaves afford a substance for weaving, or whether they were themselves the apron, may be doubted; the text is in favour of the leaves.

²¹⁶ Oriental Navigator, pp. 167, 168.

D'Anville

D'Anville has supposed that Sarápis is the same as Mazeira, without considering that if it be so, it is to the west of Ras-el-had, and that therefore his Syágros, which is fixed at Ras-el-had, cannot be correct.

XIX. ISLANDS OF KALAIUS, OR SUADI.

UPON leaving Sarápis, we have another distance of two thousand stadia, and then another group, called the Islands of Kalaius. The distance is too short²¹⁷, but the islands are those of Suadi or Swardy, which lie between Maskat and Sohar, and which, according to M'Cluer²¹⁸, are formed into four ranges for the space of seven leagues, with a clear passage between them. In assuming these islands for those of Kalaius, there can be no error, for the language of our author is precise: he says, that as you are now approaching the Gulph of Persia, keeping close²¹⁹ round the coast, you change the

²¹⁷ I should read τρισχιλίαις for διςχιλίαις; but though I have suggested corrections, I have never ventured on an alteration of the text.

²¹⁸ Oriental Navigator, p. 181. & 175.

²¹⁹ Περιχωλίζοντι δὲ τὴν ἐχομένην ἡπειρον, εἰς αὐτὴν τὴν ΑΡΚΤΟΝ ἤδη περὶ τὴν εἰσβολὴν τῆς Περσικῆς θαλάσσης, κινῶνται νῆσοι πλεόμεναι, [πλείονες, Stuckius.] Καλαίαι λεγόμεναι νῆσοι, σχεδὸν ἐπὶ σταδίαις διςχιλίαις παρεταμέναι τῇ χώρᾳ.

Thus rendered by Hudson:

In sinu autem vicinæ continentis, ad septentriones, prope ostium maris Persici insulæ jacent, ad quas navigatur, Calæi insulæ dicuntur, quæ fere bis mille stadiorum intervallo a continente sunt disjunctæ.

But how islands that lie two hundred miles from the coast, can be said to lie in a bay of the continent, is not easy to comprehend. I propose διαπλεόμεναι, or παραπλεόμεναι, *passed or sailed through*, for πλεόμεναι, and to render the passage thus:

[Proceeding on your course from Sarápis] you wind round with the adjoining coast to the north; and as you approach towards the entrance of the Gulph of Persia, at the distance of two thousand stadia [from Sarápis] you pass a group of islands, which lie in a range along the coast, and are called the Islands of Kalaius.

I imagine that παρεταμέναι τῇ χώρᾳ cannot be rendered better than by describing the islands

the direction of your course to the NORTH. This is literally true at Ras-el-had, and no where else on the coast; for Ras-el-had is the extreme point east of all Arabia; and as soon as you are past it, the coast falls back again to the north-west. If we could reckon the two thousand stadia from the point where this alteration of the course takes place, that is, from Ras-el-had, the distance also would correspond.

After arriving at these islands, if we should review the whole course from Fartaque to Ras-el-had, there is nothing to interfere with the general statement, except the mention of O'mana and Moskha; and no single point ought to stand in competition with the whole. At the distance of eighteen hundred years, it is difficult to say whether the obscurity lies with us, or the author; one should rather acquit the author, who is so correct in other respects, and look for a solution from some future lights, which may appear, either from a better knowledge of the coast, or from some better readings of the commentators, considering that the copy which we have is certainly defective, and that no manuscripts are to be expected.

islands as "*lying in a range.*" Perhaps it should be read παρατεταμέναι; and this is the precise distinction of M'Cluer. ἤδη may be read either with ἐς αὐτὴν τὴν Ἀρχτον, or with περὶ τὴν ἐσθλὴν, "*as you are just approaching the Gulph of Persia lie islands;*" and I place a comma at διαχλίαις, in order to make it express the distance from Sarāpis: but if it be joined with the final clause, it must be rendered, "*the Islands of Kalaius, which lie in a range*" "*two thousand stadia along the coast.*" This is not true; neither can we stretch the seven

leagues of M'Cluer, or one-and-twenty miles to two hundred. Περικολιζοῦσι, signifies literally, to *keep close to the shore, to follow the windings of the shore.* But whatever doubt there may be concerning the contents of the whole passage, nothing can be more plain than this one circumstance, that the course of the voyage is changed here to the NORTH, and this particular can be true only at Ras-el-had. This is the truth we have been searching for, and I think the proof is conclusive.

The

The natives, on the main opposite to these islands, are said to be treacherous, and their vision to be defective during the light of the day: what the latter circumstance may allude to, it is not material to inquire, but their treachery is natural if they are Bedouin Arabs, as Lieut. Porter²²⁰ says they were in his time at Sohar, and not civilized in their behaviour to the people of his boat.

XX. ISLANDS OF PAPIAS.

WE have now the Islands of Papias, and the Fair Mountain, with the entrance of the Persian Gulph: for the first, we must look to two or three small islands on the coast, beyond Sohar, towards the north; and at the last of these the Journal places the Fair Mountain, which would answer sufficiently to Cape Fillam, if that be high land; and not far from Fillam are the Straits.

It is not improbable, however, that the Islands of Papias may be the Coins, which lie immediately off the entrance of the gulph; for, in a letter of Lieut. M'Cluer to Mr. Dalrymple, he writes, "the Great Coin lies in lat. $26^{\circ} 30' 0''$ north and there are four other islands between this and Cape Muffeldom, all of them smaller than the Great Coin, and none of them inhabited . . . Besides these, there are seven others close in, which are not easily distinguished from the Arabian shore." But the determination of the question will depend upon the position in which we view the islands; for they seem to lie within Moçandon, while those of Papias precede it. We must likewise find a place for the Fair Mountain between them and the Cape, for which there seems hardly space sufficient.

²²⁰ Oriental Navigator, p. 177.

XXI. SABO, ASABO, or MOÇANDON.

It is well known that Moçandon is represented in Ptolemy by the black mountains called Afabo, the promontory of the Afabi; and that Sabo signifies South, designating, as it should seem, in the mind of Arabian navigators, the extreme point south of the Gulph of Persia. A tribe is also noticed in the neighbourhood, which is called Macæ both by Ptolemy and Arrian; and in Macæ we obtain probably the rudiments of Moçandon which *we* have from the Portuguese. But the Orientalists give a different etymology, and inform us, that Mo-salem is the Cape of Congratulation.

Moçandon is of vast height, and frightful appearance; it forms, with Mount ²²¹ Ehowrs, or Elbours, on the opposite shore, the entrance to the gulph, which is near forty miles broad, estimated at sixty in the Periplûs; and Elbours is called the Round Mountain of Semiramis: it is round in fact, and has its modern name of Elbours from its supposed resemblance to the Fire Towers of the Guebres or Parsees.

Moçandon is a sort of Lizard point to the gulph; for all the Arabian ships take their departure from it, with some ceremonies of superstition, imploring a blessing on their voyage, and setting afloat a toy, like a vessel rigged and decorated, which, if it is dashed to pieces by the rocks, is to be accepted by the Ocean as an offering for the escape of the vessel.

Whether the author himself passed this cape, and entered the gulph, is very dubious; from the manner of the narration, I should conclude he never entered the gulph; for he mentions only two particulars within the straits, and then introduces the passage across the open sea from Arabia to Karmania.

²²¹ These two mountains opposite, are the Owair and Kofair of Al Edrissi, p. 4.

XXII. TERÉDON, APÓLOGUS, or OBOLEH.

BUT the two particulars noticed are remarkable: the one is the Pearl Fishery, which extends on the bank great part of the way from Moçandon to Bahrain; and the other is the situation of a town called Apólogus, at the head of the gulph on the Euphrates, and opposite the Fort of Pasinus or Spasinus. There can be no hesitation in adopting the opinion of d'Anville, that Apólogus is Oboleh, upon the canal that leads from the Euphrates to Basra; for Oboleh is situated, according to Al Edrissi²²², at the angle between the canal and the river; and he adds, that the canal covers it on the north, and the river on the east; consequently, this is as nearly opposite to the Fort of Pasinus, as the canal is to the Haffar River, which communicates with all the mouths of the Tigris and Euphrates.

Apólogus is Greek in its external form, but much more properly deduced, as d'Anville observes, from Oboleh, which, with the strong oriental aspirate, becomes Obolehh or Obolegh. We may consequently assume this for a proof of its existence as a place of commerce at so early a period, when it had probably taken place of Terédon or Diridótis, as Basra took place of Oboleh under the second Caliphate²²³ of the Mahometans; but that Oboleh continued a mart of consideration long after the building of Basra²²⁴, we may

²²² P. 121.

²²³ Abulfeda Reiske, p. 113.

²²⁴ Al Edrissi mentions Basra sufficiently; but in his general description he says, Ab mari Sin derivatur mare Viride, estq; sinus Persæ et Obollæ, . . . sinus pervenit usque ad Obollam prope Abadan, ibiq; terminatur; PP. 3, 4.

Mare Viride, - - the Persian Sea.

Mare Fulvum, - - the Caspian.

Mare Candidum, - the Propontia.

Mare Nigrum, - the Euxine.

Mare Venetum - the Blue Sea, or Mediterranean.

Why do we dispute so much about the mare Rubrum?

be assured by Al Edrisi's making it the termination of the gulph, as well as the Periplûs; and Oboleh, or a village that represents it, still exists between Basra and the Euphrates; the canal also is called the Canal of Oboleh.

Terêdon had been a city of great trade from very remote times; that is, from the age of Nebuchadnezzar to the Macedonian conquest. It seems to have continued so till the time of Augustus, for it is mentioned by Dionysius²²⁵; deserted afterwards, perhaps, from the failure of water in the Khore Abdillah, or ancient mouth of the Euphrates, and replaced by Oboleh, probably during the dynasty of the Arsacides. The Babylonians, who commanded the river from the gulph to the capital, doubtless made use of it as the channel of Oriental commerce; and the traffick which had passed by Arabia, or by the Red Sea, through Idumêa, to Egypt, Tyre, and other places on the Mediterranean, was diverted by Nebuchadnezzar, after the destruction of Tyre, to the Persian Gulph; and through his territories in Mesopotamia, by Palmyra and Damascus, it passed through Syria to the West. After the conquest of Babylon by Cyrus, the Persians, who were neither navigators to the East, nor attentive to their frontier on the west, suffered Babylon, Nineveh, and Opis, to sink into ruin; the course of trade, therefore, returned to Arabia on the south, to the Caspian²²⁶ and Euxine on the north: Idumêa became again the resort of the caravans; and Tyre rose out of its ashes, till its power enabled it to maintain a siege of eight months against Alexander, in the career of his victories.

²²⁵ Dionysius is said to be the versifier of Eratosthenes's Geography; if so, it is not quite a proof that it did exist in his time.

²²⁶ See Strabo, p. 509. The trade passed by the Oxus into the Caspian Sea, and from the Caspian up the Cyrus and Araxes into

Albania; then down the Phasis, or Anthemus, into the Euxine; in Justinian's time, by Dubios, a country eight days from Theodosiopolis in Crimêa, where the trade from India, Iberia, and Persia, meets the Roman merchants. Procopius de Bello Persico, p. 149.

XXIII. ORIENTAL COMMERCE BY THE GULPH OF PERSIA.

WHAT views this Conqueror had after his first victories, we can only conjecture; but after his return from India, we may be assured that his comprehensive mind had embraced all that vast system which was afterwards completed at Alexandria. His successors, the Ptolemies in Egypt, and the Seleucidæ in Syria, were rivals in this commerce; Palmyra, Damascus, and Antioch, all lie on the line of the caravans from the Persian Gulph; the Caspian and the Euxine were again frequented, and the commerce on this side enriched the kingdoms²²⁷ of Prusias, Attalus, and Mithridates; while the navigation on the Indian Ocean, built upon the same foundation, made Alexandria the first commercial city of the world. Egypt, maintaining its intercourse with the East, in the first instance by means of the Sabæans, and finally, by fleets fitted out from its own ports on the Red Sea.

²²⁷ It would be foreign to the present work to pursue the inquiry into this commerce, as carried on by land on the north. But it seems to have existed in the time of Herodotus, who mentions the trade on the Euxine conducted by interpreters of seven different languages: in the time of Mithridates*, 300 different nations met at Dioscûrias in Colchis; and, in the early time of the Roman power in that country, there were 130 interpreters of the languages used there; but now, says Pliny, the city is deserted; that is, in Pliny's age,

* Marcian Heracleota. Hudson, p. 64. says, that Timosthenes wrote a very imperfect work on Geography, and Eratosthenes copied him verbatim.

Timosthenes was a Rhodian. See an Account of his Work, *ibid.*

the Romans would not suffer the Parthians, or any of the northern nations, to traffic by the Euxine, but confined the whole trade to Alexandria, and the maritime intercourse with India. See Herodotus, lib. iv. and Pliny, lib. vi. 5.

Dioscûrias was on the Anthemus, one of the rivers that came out of Caucasus into the Euxine.

Dioscûrias was called Sebastopolis in Adrian's time, and the last fortification of the Roman empire. Arrian, who visited it, mentions nothing of its trade. Arriani Periplus Maris Euxini, p. 18. I find nothing of the Anthemus; but the Phasis was navigable for thirty-eight miles. Second Periplus Eux. Sea, Hudson.

In

In the following ages, the dynasty of the Arsacidæ divided these profits with the Romans; and in the decline of the Roman power, the revived Persian dynasty assumed such an ascendancy, that in the time of Justinian the Romans had recourse to the powers of Arabia²²⁸ and Abyssinia, to open that commerce from which the Persians had excluded them; and when the Persian dynasty sunk under the power of the Chaliphs, the Mahomedan²²⁹ accounts of the plunder found at Ctesiphon, prove the full possession of the Indian commerce by the Persians.

XXIV. CAIRO.

UPON the erection of two chaliphates, one at Bagdad, and the other at Cairo, the commerce of India was again divided; but the greatest part of the precious commodities which reached Europe, came through the hands of the Venetians from Alexandria, till the Genoese opened the northern communication again by means of the Euxine, the Caspian, and their settlement at Caffa in the Crimea.

²²⁸ Procopius, lib. i. c. 20. mentions Justinian's application to the king of Abyssinia to obtain the importation of silk; but the Abyssinians could not effect this, the Parthians [Persians] having seized on the emporia. Paolino, p. 96.

²²⁹ When Heraclius took Dastagherd, the palace of Chosroes, he found in it aloes, aloes wood, mataxa, silk thread, pepper, muslins, or muslin frocks without number, sugar, gin-

ger, silk robes, wove carpets, embroidered carpets, and bullion. Cedrenus, p. 418.—*Merakia* *Empir mivara*. Glycas, p. 270. who gives the same history of procuring silk-worms as Procopius.

When Sad, the general of Omar, took Ctesiphon or Modain, the carpet is particularly mentioned. See Abulfeda Reiske, 70; but other particulars are omitted.

XXV. CRUSADES.

IN the eleventh and twelfth centuries, the Crusades opened to the eyes of the Europeans the sources of this Oriental wealth. The loss of the kingdom of Jerusalem enabled them to discover, that the power of Saladin was founded on the revenue derived from the commerce which passed through Egypt; and the work of Marin Sanuto²³⁰ is a Memorial presented to the Pope, and the principal sovereigns of Europe, in order to instruct them, that if they would compel their merchants to trade only through the dominions of the chaliphs of Bagdat, they would be better supplied, and at a cheaper rate; and would have no longer to fear the power of the soldans in Egypt.

What those sovereigns did not, or could not do, was effected three centuries later by the discovery of the Cape of Good Hope: to this discovery Europe is certainly indebted for the decline of the Turkish power, which at that time threatened the whole Western

²³⁰ This curious work is inserted in the *Gesta Dei per Francos*: it is highly interesting, both upon account of the commercial intelligence it contains, and the clear-sighted speculations of the author. I owe the knowledge of it to Bergeron, who has cited it in his *Treatise on Commerce* annexed to his collection of Voyages, which is itself also a most valuable work. The editor of the *Gesta Dei*, &c. says, he had the Memorial of Sanuto, in two MSS. copies, from Scaliger and Petavius; that one of these was bound in velvet, and ornamented with clasps, &c. so as to assure him that it was one of the original copies, presented by Sanuto himself to some

one of the princes: if so, I imagine it contains the oldest map of the world at this day existing, except the Peutingerian Tables; for Marin Sanuto lived in 1324. His map, however, is wholly in the Arabic form; and, I conclude, built on one that he had procured when in Palestine. There is another Livio Sanuto, a geographer in the 16th century, whose work I have seen in the King's Library, but not examined; it seemed a valuable work for the age. In this Sanuto's time the India trade had settled again at Aden, where it was when the Romans destroyed that city 1300 years before. See lib. i. c. 1. The whole is worth consulting.

world;

world; and the various other important consequences which ensued, are too well known, and have been too well detailed in history, to require insertion in the present work.

Of the interior of Arabia we know little to this day; but that, notwithstanding the danger of robbery, caravans of great value traversed it in all ages, we have certain evidence to depend on. Previous to the *Periplus*, we have the testimony of Strabo and Agatharchides; in the middle ages, the account of Al Edrissi; and, in our own time, we want no other proof than the English importations at Jiddah, which reach Mecca at the time of the Pilgrimage, and from thence seem to be dispersed over the whole peninsula.

At Grane likewise, in the north-west angle of the Persian Gulph, there has been a considerable importation till within these few years; and at El Catif, near Bahrain, which is the Gerrha of the ancients, there is some commerce besides the returns for the Pearl Fishery; but with the progress of which, inland, we are unacquainted.

Somewhere in the neighbourhood of Grane was the seat of Abdul Wahab, who, with his army of deists and democrats, has plundered Mecca within these three years, upon the same principle as his brethren in Europe demolished the Church of their own country, and with much the same event to the plunderers; for Abdul Wahab is said to have fallen by the hands of an assassin, as the first democrats of France have mostly perished in the course of the revolution.

XXVI. GERRHA.

GERRHA is one of the few towns in Arabia that Pliny has enabled us to fix with certainty; for he comes down the western coast of the gulph, which, he says, was never explored till visited by Epíphanes; and which is little known to any now except the natives: but Pliny, after passing the island of Ichara, and one or two obscure places, mentions Gerrha as a city five miles round, and the walls or towers built of fossil²³¹ salt. This is a circumstance true (I think) only at Ormus and El Katif, which, added to the size of the city, ascertains its identity. It is necessary to be particular in this respect, because the Gerrhêans are the first conductors of the caravans upon record; and it is highly probable, that long previous to history they enjoyed the profits of this traffic; for Agatharchides²³², who first mentions them, compares their riches with those of the Sabêans; and adds, that they brought much wealth into Syria, which was at that time subject to Ptolemy; and furnished a variety of articles for the industry of the Phenicians. By this we understand, that they crossed the whole peninsula to Petra in Idumêa, from which city we know that the intercourse was open with Tyre, Phenicia, and Syria. Strabo²³³ informs us, that they were the general carriers of all the produce of Arabia, and all the spices, or aromatics; but he adds likewise, that Aristobûlus contradicts this, and says, that they go up the

²³¹ Strabo also, lib. xvi. p. 766. Charrae had the same use of fossil salt, Plin. xxxi. 7.

²³² Hudson Geog. Min. Agatharchides, p. 64. ἐκτεταμεινμένων πᾶν τὸ πίπτει εἰς διαφορὰς λόγους ἀπὸ τῆς Ἀσίας καὶ τῆς Ἑυρώπης, the factors for all the precious commodities of Asia and Europe.

²³³ Πεζέμποροι δ' εἰσὶν οἱ Γερραῖοι τὸ πλεον τῶν Ἀραβίων φορτίων καὶ τῶν Αρωματικῶν. Lib. xvi. p. 766. The Gerrhêans are the travelling merchants in caravans, and bring the produce of Arabia, and the spices of India.

Euphrates in boats, to Babylonia and Thapsacus, and from thence disperse their commodities in all directions by land. Both these relations may be true, as applied to different periods, in consequence of the obstructions they might meet with in their course, from the different powers of the several countries through which they were to pass ²³⁴.

The Gerrhêans, we may naturally suppose, from their situation in the Gulph of Persia, and from their proximity to the opposite coast of Persis and Karmania, would lie more convenient, and more directly in the route of communication with the East, than any other tribe. And, as Agatharchides says, that the Minêans and Gerrhêans both met at Petra as a common centre, we have two routes across the peninsula, correspondent to the two sorts of commerce, which ought naturally to pass in different directions: for from Gerrha, the produce of India; and, through the country of the Minêans, the frankincense of Hadramaut; would regularly be directed to Idumea.

XXVII. MINÊANS.

THE site ²³⁵ of the Minêans is not easy to fix; but by a comparison of different accounts, they were south of Hedjaz, north ²³⁶ of Hadramaut, and to the eastward ²³⁷ of Sabêa; and they were the carriers to all these provinces: their caravans passed in seventy days

²³⁴ See Al Edrissi, p. 121.

²³⁵ Bochart Phaleg. p. 121. places them at Carno 'l Manazoli, supposing it to be the Carna or Carana of Pliny. Ptolemy places them much farther south. Carno 'l Manazoli is but

three stations south of Mecca. - Al Edrissi.

²³⁶ Atramitis in Mediterraneo junguntur Minzi. Pliny, vi. 28.

²³⁷ Dionysius places them on the coast, but I think Dionysius alone.

from

from Hadramaut to Aila, as we learn from Strabo²³⁸; and Aila is but ten miles from Petra. The commodities brought by this caravan would be aloes, gold, myrrh, frankincense, and other precious gums or aromatics; while those from Gerrha would consist of cottons, spices, and the produce of the East.

As navigation increased on the coast, this mode of intercourse, and its profits, would naturally diminish. When the Ptolemies sent their fleets to Sabêa; when the Greeks, Egyptians, or Romans, reached India by the monsoon, the greatest part of what had passed through Arabia would be diverted into a new channel; in the same manner as the discovery of the Cape of Good Hope ruined the commerce of Alexandria. But that some intercourse existed, and that some caravans traversed Arabia, both in the middle ages, and do traverse it even to this hour, is a fact that cannot be disputed.

After the conquest of Persia by the Mahomedans, a road was made across the whole of the peninsula, from Mecca²³⁹ to Kufa: it is reported to have been seven hundred miles long, marked out by distances, and provided with caravan serais, and other accommodations for travellers. Into this road fell the route from Basra, and from El Katif or Gerrha. The province of which El Katif is the capital, is called Bahrain²⁴⁰ by Al Edrisi, from the two islands of that name which are the principal seat of the Pearl²⁴¹ Fishery. He speaks of El Katif as a considerable city in his time; and he gives the routes

²³⁸ Lib. xvi. p. 768. the time seems in excess; but as the distance is taken from Hadramaut to Aila, it may not exceed the proportion of 60 days from Minêa to Nera, attributed to Gallus.

²³⁹ From Mecca to Bagdat, according to Abulfeda Reiske, p. 154. wells, lakes, mile-

posts, for 700 miles. See Gibbon, v. 409. the road was made by Ol Madi Khaliph, anno Hejre 169, the post goes in eleven days.

²⁴⁰ Bahrain, in Arabick, signifies the two seas.

²⁴¹ Tylos margaritis celeberrima. Plin. vi. 28.

from it south to Sohar, north to Basra, and west to Medina²⁴²; the country on the side towards Basra is a desert seldom frequented by merchants, without villages, and inhabited only by Bedouins. But the route to Medina falls into the road that leads from Basra; and both Basra and El Katif are at equal distance, that is, twenty stations from that city, where is the sepulchre of Mahomet. The road from Basra falls into that from Kufa at Maaden²⁴³ Alnocra. I mention these circumstances, in order to shew the communications with El Katif, or Gerrha, in the middle ages; because they cannot be dissimilar from those which were open when Gerrha was a centre of Oriental commerce; and the route which led to Medina requires only a little tendency to the north, to make it the ancient line of intercourse between Gerrha and Aila, and from thence through Petra²⁴⁴ to Egypt, Tyre, and the coasts of the Mediterranean.

XXVIII. ANTIQUITY OF ORIENTAL COMMERCE.

So far as a private opinion is of weight, I am fully persuaded that this line of communication with the East is the oldest in the world; older than Moses or Abraham. I believe that the Idumæans, who were carrying spices into Egypt when they found Joseph in their

²⁴² There is another route supposed to be intimated in Strabo, from Gerrha to Hadramaut; but the reading, instead of Γερρῶσις, is Γαζῶσις, which, Salmasius says, ought to be Γαζῶσις, from Gaza to Hadramaut forty days. If this were so, it contradicts another passage of Strabo, where he says, the Minæans were seventy days in going to Elana, which is a less distance. It seems highly probable that the

Gerrhæans are meant in this place; for, as they were general carriers, it is probable they went to Hadramaut as well as in other directions.

²⁴³ A Basra ad Medinam viginti stationes et hæc via coincidit cum extremitate Kufa, prope Maaden Alnocra, p. 121.

²⁴⁴ Petra was only ten miles from Aila. Bochart Phaleg. 686.

way,

way, obtained these spices by this very route. And if it is agreeable to analogy and to history that merchants travelled before they sailed, there is no course from India to the Mediterranean where so small a space of sea must be traversed as in this direction. Karmania is visible from Arabia at the straits of the Gulph of Persia; and in the infancy of navigation, the shortest passage would be preferred. The interior of Arabia, in all ages, contained Bedouins, whose profession was robbery; but the different tribes of robbers probably received a caphar instead of seizing the whole; as they do to this day of the caravans which pass between Basra and Aleppo. They are likewise not fond of fighting for the whole, when they can obtain a tribute for a part; and necessity would compel the merchants of those ages, as well as our own, to go in large bodies, and provided with arms for their defence. The manners of the Arabs have never changed; and it is reasonable to conclude, that merchants who have to treat with Arabs have changed as little in their precautions. Pliny²⁴⁵ has preserved the memorial of these usages in the southern part of the peninsula; and there is every reason to conclude that they existed in all ages, before his time, as they do to the present hour.

It was to obviate these exactions that plans were formed to open a communication by sea. The Tyrians, as the principal merchants on the Mediterranean, and as the intermediate agents of Oriental

²⁴⁵ Ibi decimas Deo, . . . regi vectigal, . . . sacerdotibus portiones, scribisque regum . . . sed præter hos, et custodes, satellitesque & hostiarii [Ostiiarii] populantur. Jam quocunque iter est, aliubi pro aqua, aliubi pro pabulo, aut pro mansionibus, variisque portoriis pendunt . . . iterumque imperii nostri publicis canis penditur.—I appeal to every English traveller, who has ever passed between Basra and Aleppo, if this is not an exact picture of the extortions practised upon a caravan; and yet caravans still pass, and still make a profit on their merchandize—the consumer pays for all.

commerce, either first conceived the idea, or derived it possibly from the Egyptians, whom we must suppose to have had an intercourse with India whether history records it or not. The first historical account we have is, the trade of Ophir. The alliance between Hiram and Solomon was indispensable; for Solomon was master of Idumêa, and the Tyrians could establish themselves at Ezion Geber only by his permission and assistance. Solomon furnished the opportunity, and Hiram the ships; the profit accrued to the partnership; and if this voyage were made to Ophir in Arabia, where it is universally confessed there was an Ophir, even by those who search for Ophir in Africa and India; such a voyage would at least obviate all the exactions attendant upon a communication by land, and place Hiram and Solomon in the same situation as the Ptolemies stood, before a direct communication was opened between Berenikè and the coast of Malabar.

This rapid sketch of Oriental Commerce in all ages, as far as it can be traced upon historical evidence, is no digression, but an essential part of the work I have undertaken: my object has been, not merely to elucidate the Periplus by a commentary, but to trace the progress of discovery to its source; a subject curious and interesting at least, if neither useful or lucrative. But to know what has past in remote ages is the purpose of all history; and to collect, from a variety of sources, such intelligence as may enable us to distinguish truth from falsehood, if it has not the dignity of history, has at least a claim to approbation from those who know how to appreciate the labour of research, and the fidelity of investigation. Much that has been said may be controverted in particulars, and yet be correct upon the whole. I am not conscious of any preconceived system

system in my own mind, but have raised a superstructure upon the foundation of historical facts: these I have not warped, in order to accommodate them to an individual opinion; but have followed them wherever they led. I claim little merit but in concentrating these to a point; and if the same evidence should not produce the same conviction on others, I should as readily give way to those who are possessed of superior information, as I should maintain my ground against those who are pretenders to the science.

XXIX. CONCLUSION.

It is now necessary to bring this Book to a conclusion, in which the course of ancient navigation has been traced from the Gulph of Aila to the mouth of the Euphrates²⁴⁶, embracing the whole sea-coast of Arabia on its three sides. The author does not appear, from the internal evidence of his work, to have personally explored the eastern coast of the Red Sea, or the western shore of the Gulph of Persia: he seems to have come down the Red Sea from Myos Hormus to Okêlis; or perhaps from Leukè Komè, but to have touched little upon the coast till he came to the Burnt Island. On the southern coast of the peninsula we can trace him, at almost every step, to Fartaque, and to Ras-el-had; but from thence he seems, without entering the Gulph of Persia, to have stretched over with the monsoon, either to Karmania, or direct to Scindi, or to the Gulph of Cambay. At those points we find him again entering into those minute particulars, which bespeak the descriptions of an eye-witness; while, of the parts previous to these, he speaks in so

²⁴⁶ Properly the Tigris.

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transient a manner, as to create a belief that he writes from the report of others; but on this question it is not necessary to decide, the reader must determine for himself. On the two coasts of Arabia which he has touched but slightly, I have endeavoured to fill up the outline which he has sketched; and on the third side, where he has entered into detail, I have endeavoured to follow him, step by step, as minutely as I have been able. But if the interior of Arabia is a desideratum in Geography, the coast likewise is far from being accurately defined: no ships from Europe now visit it for the purpose of trade; and those which come from India to Mokha or Jidda, seldom touch upon the coast towards the ocean, unless to obtain provisions when in distress. What information may be obtained from the English cruizers which have lately been in the Red Sea, and were at one time preparing to fortify Perim in the Straits, is expected with a great degree of curiosity. Commodore Blanket, who was upon this service, was an officer of much science and great experience: he may have ordered surveys upon this coast, or some examination of it, which may clear up several of the difficulties which remain. In the mean time, I have made use of such lights as are afforded by the papers and journals of the officers of the East India Company, and which are collected in the work called the Oriental Navigator. Those who know the abilities and science of those excellent officers, will think their observations might have been sufficient for such an examination as I had instituted; but ancient navigators kept much nearer the coast, and noticed objects which are of small importance in the present state of the science. A minute particular often forms a characteristic of a port, a bay, or a shore, which we cannot hope to find in the common observations of modern

modern officers, nor elsewhere, unless when an actual survey has taken place. In the voyage of Nearchus, as my own knowledge increased, I constantly found a greater correspondence in his Journal with the actual state of the coast: I have not been * quite so fortunate in the present instance; nor do I think the author of the *Periplus* to be compared with the Macedonian commander, but still he is, as Vossius says, the only ancient author who has given a rational account of the countries or coasts he has described; and in this, if

we

ADDITIONS.

* Sir Home Popham's Chart of the Red Sea, which I obtained after the printing of this sheet, induces me to recall this assertion in some degree; for in that chart a plan of the harbour, and a view of the town of Aden, is given, which identifies it to demonstration with the place called Arabia Felix in the *Periplus*. "It lies," says the author, "twelve hundred stadia from the straits: it has very convenient anchorage, and affords excellent water; and it is situated just at the entrance of the bay, so as to remain distinct, and in some measure separated from the country along the shore." [Τῇ τῇν χώραν ὑποφύγειν.] Now, a reference to Sir H. Popham's Chart presents us with a peninsula, joined to the main by a very narrow neck, and adjoining to a river, which may afford the supply of water alluded to; and if Arabia Felix was placed on the western, instead of the eastern point of the peninsula, where Aden now stands, it would lie at the very entrance of the bay, as is specified: the difficulty, likewise, of approach to it from the adjoining coast, is sufficiently ensured by the narrowness of the neck. The distance from the straits is also accurate, within five miles.

P. 311.

CORRECTIONS.

P. 275. note 113. *Negra* is not *Nera*, but *Najeran*. See p. 277. note 118. And, according to the Roman Martyrology, St. Arethas was put to death at that place by Dunaan, a Jew, and king of the Homerites. His cruelty is noticed in the Koran, where he is called the Lord of the Fiery Pits. Elefbaas, the king of Abyssinia, revenged the death of Arethas, conquered the Homerites, and put Dunaan to death.

P. 293. The Straits of Bab-el-Mandeb are said to be six miles wide; but in Sir H. Popham's Chart they are only two miles.

P. 290. In the Table for the Coast of Arabia, I see with concern a considerable difference in the latitudes there given, compared with those of Sir H. Popham's Chart. I had followed the best authority I knew of; but they must now be considered as relative, and not real determinations.

P. 311.

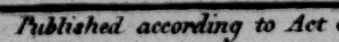
we are able to pursue his steps and elucidate his narrative, it is the performance of a service as gratifying to the curiosity of the Learned, as acceptable to the science of Geography.

ADDITIONS.

P. 311. Koródamon is supposed to be Ras-el-had, as it is the easternmost point of Arabia in Ptolemy; and its form would appear Greek, if we could find in that language *Kāvpos*, or *Kōpos*, or *Kópos*, equivalent to the Latin *Corus* or *Caurus*; for then it might be the point that terminates, or *subdues* the *westerly* monsoon, as Gardefan separates the two monsoons on the coast of Africa; but *Kópos* is not the name of a wind in Greek; neither am I informed whether Ras-el-had separates the monsoons.

CORRECTIONS.

P. 311. lin. 20. The Bay Sachalites, mentioned here, looks as if the author of the *Periplus* had two bays of the same name, prior and ulterior, as Al Edrissi has; but there is no collateral proof of this.



PERIPLUS OF THE ERYTHREAN SEA.
 THE
 PERIPLUS
 OF THE
 ERYTHREAN SEA.

INDIA.

BOOK IV.

I. *Introduction.*—II. *Course from Oman in Arabia up the Gulph of Persia, or to Karmania.*—III. *Omana in Karmania.*—IV. *Course to the Indus.*—V. *Scindi, Minnágara, Barbárikè.*—VI. *Cutch, Guzerat, Barugaza.*—VII. *Kingdom of Bactria, Tágara, Plithana, Ozénè, Dekan.*—VIII. *Ariakè or Concan, the Pirate Coast, Akabaroos, Oopara or Súpara, Kalliena or Bombay, Semulla, Mandágora, Palaipatmai, Melizéigara, Tóparon, Turannos-boas, Sefekréienai, Aigidii, Kainéitai, Leukè.*—IX. *Limúrikè or Canara, Naoora, Tundis, Nelkunda, Ela-Bákarè.*—X. *Kingdom of Pandion.*—XI. *Hippalus, and the Monsoon.*—XII. *Balíta, Cómarei, Kolkbi, Pearl Fishery.*—XIII. *Ceylon.*

I. **T**HE productions of India, and the Eastern World, are not sought after with greater avidity at the present hour, than they were by the inhabitants of Europe in the remotest ages, and all the nations which encircled the Mediterranean. Luxury this was called by the philosophers and patriots both of Greece and

Rome. But if every thing that is foreign is luxurious, there could be no commerce in the world; and if every thing which is not strictly necessary for the support of life be superfluous, thirst might be satisfied without wine, and food digested without the addition of a relish. In this view, the most ordinary accompaniments of the table should be discarded; and salt and pepper should be enumerated among the gratifications of a sensual appetite. But if both are stimulants, still they are no less salutary than grateful; and no reason can be given why salt should be considered as sacred at the table of the Greeks and Romans, while pepper was condemned as the indulgence of a voluptuary; unless that the one was a domestic produce, and the other an exotic. But barbarians were not to be enriched at the expence of Europe, and the Roman world was not to be impoverished for the attainment of Oriental luxuries;—certainly not, if the sword could retain as easily as it acquires; but the wealth acquired by rapine must of necessity revert again into the channels of commerce; and commerce, whether it tends to the East or to the West, will impoverish every nation which has no native industry to replace its demands. Rationally speaking, all commerce consists in the exchange of superfluities; and luxuries are as easily introduced by dealing with nations nearer home, as with those at a distance. There is as little reason for declaiming against the Alexandrians who purchased pepper in India with the gold of Egypt, as against the Athenians, who exchanged the silver of Laureum for the salt of Sicily or Crete.

Of pepper Pliny says, *Usum ejus adeo placuisse mirum est sola placere amaritudine et hanc in Indos peti; quis illa primus experiri cibus voluit, aut cui in appetenda avi-*

ditate esurie non fuit satis . . . et tamen pondere emitur ut aurum vel argentum. Lib. xii. c. 14. Hard.

Pliny

Pliny complains that the Roman world was exhausted by a drain of four hundred thousand pounds² a-year, required for the purchase of luxuries, equally expensive as superfluous: what would he have said of the expenditure of our single island, consisting of two millions, for the purchase of tea only in China, without comprehending any other of our investments in the East? And yet this, and all the other luxuries we import, do not impoverish us; because we export on the one hand as we receive on the other; and, so far as we are the principal carriers between the Eastern and the Western world, we stand in the same situation as those ancient nations held, which were the medium between India and the Roman empire, but with an hundred times more trade, more industry and capital.

As Providence has varied the temperature of different climates, so has it given to man a predilection for such things as are not the produce³ of his native soil. The wildest tribes of America admit traders into their country, and allow them to pass through it with security; the Scythians⁴ likewise, according to the earliest testimony of history, suffered the merchants of the Euxine to penetrate farther on the east and north, than we can trace their progress by the light of modern information.

In civilized countries, this appetite increases in proportion to our

² H. S. quingenties, near 403,645*l.* lib. vi. 23. quæ apud nos centuplicato veneunt, 40,364,500*l.*; and again, lib. xii. 18. the balance against Rome for the produce of India, Seres, and Arabia, millies centena millia festerium, 800,000*l.* tanto nobis delicæ et formæ constant. The prime cost of cargoes in India and China is now 3,000,000*l.* Rennell's Mem. Introd. p. 36.

³ Tanta mortalibus suarum rerum satietas

est, et alienarum aviditas. Plin. xii. 19.

⁴ See the Introduction to the Third Book of Herodotus, as a proof of the courage, industry, and abilities, of the Greek merchants, as well as of the extent of ancient discovery towards the north, relative to the Danube, the Euxine, the Palus Meotis, the Don, and the Wolga, illustrated by the commentary of Rennell, and displayed with much learning and accuracy of investigation.

knowledge,

knowledge, and the opportunity of procuring the variety which we covet. The indulgences of the palate are among the first stimulants of this emotion; and second to these is all that can delight the eye, or the mind, by novelty, beauty, variety, intrinsic or imaginary value. Excess of indulgence, avidity of possessing, profusion in acquiring, and wantonness in using, this variety of foreign articles, are both vicious and luxurious; but where to fix the limit between the use and the abuse, is a question more difficult to determine than we are aware of. Pliny condemns, above measure, the vanity of purchasing pearls and precious stones for the ornament of the Roman women; while he extols the works of art in sculpture, painting, and engraving, with all the enthusiasm of an admirer. But if every thing is luxurious that is not necessary to our existence, the ornamenting of a house is certainly not more useful or more rational than the decoration of a woman. And if the works of art are a specimen of human abilities, pearls, diamonds, and precious metals, are the gift of the Creator: the things themselves are indifferent; the temperate^s use of them embellishes life, and it is only the abuse of them which becomes avarice, prodigality, or folly.

The activity produced by the interchange of superfluities, is the glory of commerce, and the happiness of man; but if its merits were to be fixed by the standard of utility alone, very narrow would be the limits within which the defence of it, by its warmest advocates, must be confined. Use we can discover none in the burning of tin foil before an idol in China; and yet this practice of a nation at one extremity of the world gives bread to thousands at the other,

^s The poet understood this better than the philosopher, when he said, *Nullus argento color est, nisi temperato splendeat usu,*

supports the mariner during a voyage of eleven thousand miles, and procures for Britain, by means of a native metal, what she must otherwise have purchased by an imported one.

Moral and philosophical reasoning, however, upon this question, has had little weight in determining the general practice and habits of mankind. The prevailing taste implanted in our nature has made the pepper of Malabar, and the cinnamon of Ceylon, articles of request, from the time of Moses to the present hour; the finer spices of the Moluccas grew equally into favour, in proportion as they became known; and the more modern demand for the tea of China, and the sugar of the East or West Indies, will never cease, but with the impossibility of procuring either of those articles, by the destruction of all intercourse between the several nations of the world.

It has been shewn in the preceding pages, how the precious commodities of the East were procured, from the earliest periods that history can reach; and no revolutions of empire, either in the ancient or modern world, have ever been able to stop all the means of communication at once: the channels obstructed in one direction, have been opened in another. Tyranny, avarice, and extortion, have defeated their own ends: the monopoly of one country, as it grew intolerable, was transferred to others that were less oppressive; fluctuating generally between the Red Sea, and the Gulph of Persia; and driven sometimes to the North, by the exactions common to both. Such was the fate also of the last monopoly between Egypt and Venice, which, by its enormity, drove the Portuguese to the discovery of the communication by sea; and this channel once opened, can never be closed; the whole world are partakers in the benefit;

benefit; and Britain has the pre-eminence, only because she has the greatest industry, the largest capital, and the superiority of naval power.

It is a political consideration, awful to contemplate, and difficult to discuss, but still necessary to keep constantly in view, when we reflect how deeply all the interests of our country are concerned in the continuance of the pre-eminence we at present enjoy. Our possessions in India are almost become a part of our existence as a nation: to abandon them is impossible; to maintain them—a perpetual struggle with the native powers, and the powers of Europe to support them. It requires all the vigilance of government, and all the vigour of the controuling power, to take care that the natives should not be discontented under our empire; and that the nations of Europe should not be outraged by our approach to monopoly. These considerations, however, are totally distinct from the commerce itself, and totally foreign to the object of the present work: I touch them only as they arise, and return with pleasure to the humbler office of a commentator on the Periplus.

II. COURSE FROM OMAN, IN ARABIA, UP THE GULPH OF PERSIA, OR, TO KARMANIA.

WE have now our choice of two courses; one up the Gulph of Persia to Bahrein and Oboleh, and the other across the open sea from Arabia to Karmania; where we arrive, after a passage of six days, at the port of Omana. This port manifestly takes its name from the province of Oman in Arabia, and was doubtless a colony of Arabs, established on the coast opposite to their own, for the purpose

purpose of approaching nearer to Scindi and India, or as an intermediate port on their voyage outward, and homeward bound. Whether the merchant, whose journal we are examining, ever went up the Gulph, or touched at the port of O'mana, is highly problematical. If he was there, he has left us but slender particulars of the place; but there are some circumstances which induce a persuasion, that he passed from Arabia, either to the Indus or Barugaza, at a single stretch; for, in the first place, he has fixed O'mana in Persis, which must of necessity be either in Karmania or Gadrosia; and, added to this, his account of Oraia, in the latter province, is too obscure to prove any intimate knowledge of the country.

III. O'MANA IN GADROSIA.

O'MANA we recover a trace of in the Kombana⁶, or Nommana, of Ptolemy, in the province of Gadrosia⁷, and in the bay he calls Paragon, to the eastward of Karpella⁸, or Cape Bombareek. I have proved, in the Voyage of Nearchus, and in the former part of this work, that the Arabs had visited this coast previous to all the navigation of the Greeks; but this O'mana is not mentioned by Nearchus, and was therefore a colony established between his time and the date of the Periplus. Its immediate representative cannot be now ascertained; but its relative situation may be assigned from

⁶ Kombana, in the Greek copies; Nommana, in the Latin.

⁷ Pliny makes it a city of Karmania: *Oppidum O'manæ quod priores celebrem portum Carmanizæ fecere.* Lib. vi. 28. Ptolemy does the same; but Nearchus commences Karmania

only at Dagasira.

⁸ Ptolemy sometimes writes this Karpela, which, I think, signifies the Pierced Mountain, such as Bombareek is. The Latin text is Karpella.

Ptolemy, between the River⁹ Ifkim and Muckfa; so that it must be in Gadorfia, and not many leagues east from Cape Jask.

There is a regular intercourse between Barugaza and this port, which extends also to Oboleh, at the head of the Persian Gulph. The imports consist of

Χαλκῶν,	-	-	-	Brass.
Ξύλων Σαγαλίνων ¹⁰ ,	-	-	-	Sandal Wood.
Δοκῶν,	-	-	-	Wood squared; perhaps Δοκῶν Σανδαλίνων.
Κεράτων,	-	-	-	Horn.
Φαλάγγων ¹¹ σησαμίνων,	-	-	}	Ebony in round sticks.
Φαλάγγων Ἐβενίνων,	-	-		

Except ebony and sandal wood, there is nothing appropriate in this cargo.

But it is added, that a particular species of vessels called Madarátè were built here for the Arabians, the planking of which was sewed together without nails, like those already described on the coast of Africa. Vessels of this kind, called Trankies, and Dows, are still in use; and they were formerly built in Africa or Gadorfia, we may conclude, because Arabia furnishes few materials for the construction of ships.

The only import from Kanè was Frankincense; while both¹² from Oboleh and O'mana great quantities of Pearl were exported, but of an inferior sort, to Arabia and Barugaza; and besides this,

⁹ That is, the Sarus and Dagasira.

¹⁰ Σαγαλίνων, easily corrupted from Σανδαλίνων.

¹¹ Σησαμίνων is evidently a corrupt reading. Wood of some sort is meant, but sesamum is a herb. Salmasius tried to explain it, but left

it undetermined. Σησαμίνα ξύλα are, however, mentioned by Cosmas.

¹² Ἀπὸ ἑκατέρων τῶν ἐμπορίων, from either port, which I apply to Oboleh and Omana, because they were before joined as ἀμφότερα ταῦτα ἐμπορία.

Πορφύρα,	-	-	-	Purple.
Ἰματισμὸς ἐντόπιος,	-	-	-	Cloth of native manufacture.
Οἶνος,	-	-	-	Wine.
Φοῖνιξ πολὺς,	-	-	-	Dates, in large quantity.
Χρυσὸς,	-	-	-	Gold.
Σώματα,	-	-	-	Slaves.

After leaving the district of O'mana, the country" which succeeds belongs to another government; and there is a bay which is called the Bay of the Terabdi, formed by the coast trending inwards, in the middle of their territory.

IV. COURSE TO THE INDUS.

THIS Bay of the Terabdi answers to the Paragôn of Ptolemy, although there is in reality no bay on the coast. No extent is given to that of the Periplûs; but the Paragôn of Ptolemy extends from Karpella to Alambateir, or Guadel. Doubtless this is an error arising out of the form of the coast upon approaching the Gulph of Persia; and if we suppose the ancient course of the passage from Arabia to Karmania to have been made across, without approaching the Straits, the apprehension of such a bay is natural. This is the passage indicated by the Periplûs, six days in extent; and may perhaps have misled the author, as well as others, who followed the same course.

In or near this bay, we are informed that there is a river which admits vessels, and a small port at the mouth of it called Oraia.

¹³ Μετὰ δὲ τὴν Ὀμαντικὴν χώραν ὁμοίως, ἢ παρὰ τὸν ποταμὸν παρακίεται [χώρα] βασιλείας ἑτέρας, καὶ κόλπος παρανατέννυι: but there is some corruption of the text, or something not easily understood. Χώρα is either omitted or under-

The capital of the district is inland, at the distance of seven days journey, where the king resides. The country produces plenty of corn, wine, rice, and dates; but on the coast nothing except bdellium¹⁴.

These circumstances happen to coincide with an account given to Lieut. Porter, when he was at Chewabad¹⁵, on this coast; for a coast without produce he experienced, and the natives told him of a city seven days inland, large and walled: if therefore we knew where to fix the limits of our author's bay of Terabdi, we should have something to direct us to a position. The river seems like the Tanka Banca, or White River, of the charts; while Oraia bears a resemblance to the Oritæ of Nearchus; but to these it is hardly related, as the journal certainly intimates a great extent of the coast between Oraia and the Indus; while the Oritæ of Nearchus are within fifty leagues of that river. We find no Oraia in Ptolemy; and if we are still in Gaddusia, there is no place seven days inland which would answer to the Oraia of our author, but the Phoregh, or Poora, of Arrian. But on the whole of this, as we have so few data to guide us, it is safer to suspend our judgment than to decide.

On the coast which follows, and which may be supposed to be the tract between Guadel and the Indus, the description accords much better with the reality¹⁶; for we are told, that¹⁷ there is a
vast

¹⁴ A gum. See Plin. xii. 9.

¹⁵ Churbar. Lieut. Porter's Memoir, p. 8. in Mr. Dalrymple's Collection.

¹⁶ This description answers much better than that of Ptolemy, who has one line of coast from Alambateir, or Guadel, to the head of the Bay of Kutch.

¹⁷ Μετὰ δὲ ταύτην τὴν χώραν, ἥδη τῆς ἡπείρου διὰ

τὸ βάθος τῶν Κόλπων ἐκ τῆς ἀνατολῆς, ὑπερκερῶσης, ἐνδέχεται παραθαλάσσια μέρη τῆς Σκυθίας, παρ' αὐτὸν κείμενα τὸν βορρῆαν. This passage, ill constructed as it is, I trust I have rendered faithfully: ὑπερκερῶσης, I imagine, expresses *encircling to a vast extent*; applied to an army, it means, *out-flanking the whole*: and ἐκ τῆς ἀνατολῆς may be said of a bay, the head of which is to the east, and

vast sweep of the shore round the indenture of the bays, which have an inclination to the East; and, after passing these, a low tract of country towards the sea, called Scythia, lies on the north of the course, and which extends to the river Sinthus.

These bays are evidently meant for those that are formed by the Capes Possen, Arraba, and Monze; and the bay immediately preceding Monze has a large sweep, to which, with the assistance of imagination, we may give a direction to the East, as its inmost curve is somewhat to the east of Cape Monze. It is added, that during the course from Monze to the Indus, the land is low, and lies to the north of the vessel that is passing to the East. This tract is now called Scindi; and the Scythia of the Periplus, wherever it occurs, is the actual Scindi of the Oriental and modern geographers. Why the author writes Scythia, and why Ptolemy finds an Indo-Scythia in this country, has already been conjectured in the Voyage of Nearchus; where it was observed, on the authority of the Ayeen Acbari, that the country is divided between the Hendians and Sethians. I am myself persuaded that this distinction is

and the opening to the west. But if we read *ἡπίστες ὑπερμερώσας ἐκ τῆς ἀνατολῆς*, the sense will not be very different, but the range of the coast more difficult to comprehend.

¹⁸ The distinction in Al Edrissi and the Oriental geographers, is Scind and Hind; that is, Scindi and Hindostan. Scindi comprehends the country on both sides the Indus; and the Indus itself is written Scind or Sind, with an S, which is preserved in the Sinthus of the Periplus—in the Sindi and Sindocanda of Ptolemy. The Indus acquires another name while it continues a single stream; for between Moultan and Tatta, it is called Mehran

Mekran, and hence Kutch Mekran, the country on the coast west of the Mehran; and from Kutch Rennell derives Gadrosia. There is likewise another Oriental distinction, between Hind and Sin; in which Hind means Hindostan, and Sin, or Chin, Cochin China: Chin is also written Cheen; and Ma-Cheen, Great Cheen, means the country we now call China.—I ought not to dismiss this note without observing, that the Mehran of Ebn Haukel is the Chin-ab, or Akéfnés: he is, in this, at variance with other Oriental writers; but his authority stands high.

original;

original; and that it is the cause of the error which has been adopted by Ptolemy, and other ancient geographers: but if this opinion is rejected, I should then say, that Scythia is a corruption of Scynthia, and that Scynthia is as precisely Scindi, as Sinthus is the Indus.

V. SCINDI, MINNÁGARA, BARBÁRIKÉ.

I SHALL collect the several particulars relating to Scindi, which lie dispersed in other parts of the Journal, to this point; for it is natural to conclude, that from the time of Alexander, and the publication of the Voyage of Nearchus, the Greeks had always considered Pátala as the Port to which they were to direct their views, in order to obtain the precious commodities of the East. I have every where allowed that, while the mass of the trade was confined between Egypt and Sabêa, single ships, or individual merchants, might have reached India from the ports of the Red Sea. It is natural also to suppose, that the subjects of the Seleucidæ were directed by the same inducements, while the Syrian Monarchy was in its vigour,—while it possessed Susiana, Persis, Karmania, and the whole eastern side of the Gulph of Persia, and before it was weakened by the revolt of Parthia, Bactria, and the country at the sources of the Indus. The celebrated embassies likewise of the Syrian monarchs to Sandrocottus and Alitróchades, the sovereigns of Hindostan, probably embraced objects of commerce as well as empire; for those who found their way to the Ganges, could not be unacquainted with the profits to be derived from the commerce of the Indus.

The

The first¹⁹ ship that coasted round the peninsula of Arabia from the Red Sea, or that retraced the steps of Nearchus back again from the Gulph of Persia, would naturally direct its course to Pátala and the Indus. Here it was known from history that the productions of the East were to be obtained; and here the trade, which passed in the earliest ages between all the countries at the sources of the Indus and the coast of Malabar, must always have fixed its centre. As the Greeks and Romans increased their knowledge, and finally became acquainted with the monsoon, they made their passage to India direct; but the voyage to the Indus was not yet abandoned in the age of the *Periplus*, nor probably for several ages later. Pátala our merchant does not mention, but there were evidently two marts of importance still on this river: one, towards its issue, called Barbárikè; and another, somewhere in or near the Island of Behker, higher up, named Minnágara, which corresponded with the Sogdi, or Musikanus, of the Macedonians, and which has been replaced by the Behker (Mansoura) or the Loheri of modern Scindi, or any one of the capitals occupied by different invaders in the various revolutions of this country.

Minnagar²⁰, or Minnágara, perhaps the Binágara of Ptolemy, is described as the capital of the country, and the residence of a sovereign, whose²¹ power extended in that age as far as Barugaza, or

¹⁹ Large ships from the Indus, Pátala, Persis, and Karmania, came to Arabia as early as the time of Agatharchides, and most probably many ages prior, before there was any history to report the fact. I suppose these vessels to have been chiefly navigated by Arabians, because we can prove the settlement of that people on the coast of India from the time that history commences. See *Periplus* supra, p. 36.

²⁰ Minnagar is the fortress or city of Min, like Bishnagar, Tattanagar, &c.

²¹ Maghmood the Ghaznevide, coming down the Indus, made his first inroads into Guzerat; and there seems to be a general connection between this province and Scindi, for the language is the same from Surat to Tatta, as we learn from Paolino, p. 262.

Guzerat. The government was in the hands of a tribe of Parthians²², divided into two parties; each party²³, as it prevailed, chose a king out of its own body, and drove out the king of the opposite faction. This sovereign, however, must have been of consequence, or the trade of his country very lucrative to the merchant, as appears by the presents necessary to ensure his protection. These were,

Βαρύτιμα ἀργυρώματα,	-	-	Plate of very great value.
Μουσικά ²⁴ ,	-	-	Musical Instruments.
Παρθένοι εὐειδεῖς πρὸς παλλακίαν,	-	-	Handsome Girls for the Haram.
Ὀῖνος διάφορος,	-	-	The best Wine.
Ἰματισμὸς ἀπλῆς πολυτελῆς,	-	-	Plain Cloth, of high price.
Μύρον ἑξοχον,	-	-	The finest Perfumes, or perfumed Unguent.

These articles are all expensive, and the best of their kind. The profits upon the trade must therefore have been great; but if Pliny's account be true, that every pound laid out in India produced an

²² Βασιλεύεται δὲ ὑπὸ Πάρθων, συνεχῶς ἀλλήλους ἐκδιωκόντων. I should have been glad to have interpreted this passage as relating to the Parthian empire, which was then in its vigour, and might have extended itself eastward to the Indus; and, by applying ἀλλήλους to Hindoos and Parthians, the expulsion of each, alternately, from Minnagar, would have resembled the fate of Candahar in these latter ages. But it would then have been written ὑπὸ τῶν Πάρθων, *the Parthians, the Parthian empire*; and Πάρθων ἀλλήλους ἐκδιωκόντων must be, *Parthians driving out Parthians*.

²³ If the governing power were Parthians, the distance is very great for them to arrive at the Indus; may we not, by the assistance of imagination, suppose them to have been

Aghwans, whose inroads into India have been frequent in all ages. That the government was not Hindoo is manifest; and any tribe from the West might be confounded with Parthians. If we suppose them to be Aghwans, this is a primary conquest of that nation, extending from the Indus to Guzerat, very similar to the invasions of Mahmood the Ghaznavide, and the present Abdoltees or Durrannees. The Belootches, who have infested this country from the time of Alexander to the present hour, are a tribe of Aghwans: but the whole of this is suggested as a mere conjecture.

²⁴ Μουσικά in Greece would have a different sense; but I follow Hudson; I think he is correct, considering the country.

hundred at Rome, greater exactions than these might easily be supported.

The precise situation of Minnágara it is not easy to determine; but if it be the Minhavareh of Al Biruni³⁵, inserted in De la Rochette's Map, I conclude it is also the Manhaberè of Al Edrissi. Al Biruni was a native of the country, and consequently his authority is great; and it is to be presumed that De la Rochette follows him as a guide, in placing Minhavareh on the Indus, between the Island of the Behker and the Delta: Al Edrissi places his Manhaberè at two stations, or sixty miles, from Dabil; and Dabil, he adds, is three stations, or ninety miles, from the mouth of the Indus; that is, it is at the head of the Delta, and Manhaberè sixty miles higher. But he adds, that it is towards the west, which causes some confusion, unless he means by this that it is in the Island of Behker, which he extends likewise to the west. But if Al Biruni and Al Edrissi can be reconciled, a Minhavareh, sixty miles above the Delta, agrees perfectly with the Minnágara of the Periplus, and sufficiently with the Binnágara of Ptolemy; but not with *his* Minnágara, for that is in Guzerat, and he has another in the Bay of Bengal. D'Anville³⁶ supposes Minnágara to be the same as Mansoura, and Dabil to be at the mouth of the Indus, instead of being at the head of the Delta, where Al Edrissi places it; but we approach so near a conclusion by means of the two Oriental geographers, that I think it may be depended on. The journal says, that the ships lay at Barbarikè, which was a port on the middle branch of the Indus, near the sea, and facing a small island; that Minnagar was beyond it inland; and that the whole cargo was carried up to that

³⁵ So called from the place of his residence, Abulfeda in Melch. Thevenot, vol. i. p. 9. Al Birun, between Dubul and Mansura.—

³⁶ Antiq. de l'Inde, p. 34.

metropolis by the river. The representative to supply the place of such a capital would be the modern Loheri, at the southern termination of the Isle of Behker, which, a century ago, was a place of considerable commerce, and gave name to the two principal branches of the Indus, east and west, as they divide to embrace the Delta: the eastern is styled Bundar-Loheri, and the western, Loheri-Bundar²⁷.

One circumstance most remarkable is, that the port of Barbarikè is placed on the middle channel of the seven; and the other six are said to be too shallow, or too marshy, to be navigable. This is contrary to the report of Nearchus, and to our modern accounts; for Alexander navigated the two extreme²⁸ channels, east and west; and they were both navigable within these fifty years. Whether the government of Minnagar cleared and opened the centre one, can only be conjectured; ships did not go up it, and what water was required for the boats that carried up their lading, depends on the nature of the vessels which were employed. The Ritchel River, and that which issues at Scindi Bar, may either of them have been navigable in former times, or in different ages, according to the interest or situation of the different governments which may have prevailed. Rennell²⁹ still speaks of the Ritchel River as the largest; and without calculating whether it is precisely the central issue of the seven, here Barbarikè might be placed, if other circumstances should be found

²⁷ Bundar Lori, the Eastern Channel, is called Nulla Sunkra in the treaty of Nadir Shah. See Nearchus, p. 529.

²⁸ The western channel, which conducted to Lori-Bundar and Tatta, was the only one frequented by the English. This is now either impracticable, or rendered unsafe for strangers

by the government; for Tippoo Sultan's ambassadors to the Abdollee Shah did not go up the Indus, but landed at Caranchy or Crotchey.

See his Letters and Orders, in the Asiatick Ann. Register.

²⁹ Memoir, last ed. p. 180.

to correspond. It is some proof of the fact, that Ptolemy has placed his Barbari in the Delta, convenient for the third and fourth channel; but his Barbari does not answer to the Barbárikè of the Periplus; it is above his Patala, while the Barbárikè of the Periplus is at the mouth of the channel, and close to the sea. It ought likewise to be observed, that this term is not the native name of a port, but a Greek epithet³⁰, implying, the Barbaric Port, the Barbaric Country, derived, if the conjecture may be allowed, from the merchants finding here those articles which they had formerly purchased at Mosyllon, on the original Berber coast of Africa, where there is a Barbora to this day, and from whence many of the Oriental articles³¹ in the market of Alexandria were called Barbarine and Barbarick.

The

³⁰ Ἐμπορίον Βαρβαρικόν, Χώρα Βαρβαρική. It is a most extraordinary circumstance, which I am informed of by Mr. A. Hamilton, that Barbara has precisely the same meaning in Sanskreet, as it has in Greek, Latin, and English; all manifestly deducible from Egypt. A term of reproach synonymous with *savage*.

³¹ I submit the following conjecture to the natural historians, without any assertion of its truth, or sufficient means of ascertaining it:—Rhubarb is written Rha *Barbarum* and Rha *Ponticum*; and as the best rhubarb always came out of Eastern Tartary, the first course by which it would reach Greece would be by the Wolga, the Caspian, and the Euxine. Now Rha is the native name of the Wolga; and Rha *Ponticum* would be the drug that came by the Rha, and Pontus, into Greece. But another conveyance of this drug would be out of Tartary to Cabul, and from Cabul down the Indus to Scindi, and to this port of Barbari, or Barbárikè. If then the name of

the drug Rha was already received in Europe, would not the Rha procured in Scindi be called the Rha *Barbarum*?—I have not found this drug in Pliny, but suspect it to be his Rhacoma, xxvii. 105. very dubiously described; and I know that Rha *Ponticum*, and Rha *Barbarum*, convey now ideas not consonant to this explication; but still it may be the true one, originally: the ground for the adoption of this opinion is derived from Salmasius. Bayer observes, that Rha signifies a river in the language of the natives. *Hist. Bacl.* p. 163. from Scaliger, *Doct. Temporum*. That Rha the plant, derived its name from Rha the river, we have certain information in Ammianus Marcellinus: *Hujc, Rha vicinus est amnis in cujus superciliis ejusdem nominis, gignitur radix proficiens ad usus multiplices medelarum.* *Am. Mar.* p. 390; and, because this root was brought out of the Euxine, he confounds the Rha with the Don, and supposes it near the *Palus Mæotis*. The rhubarb brought into

India

The articles imported at Barbarikè are,

Ἰματισμὸς ἀπλῆς ἱκανὸς,	-	-	-	Clothing, plain, and in considerable quantity.
Ἰματισμὸς νόθος ἔ' πολὺς,	-	-	-	Clothing, mixed.
Πολύμιτα ³² ,	-	-	-	Cloth, larger in the warp than the woof.
Χρυσόλιθον,	-	-	-	Topazes.
Κοράλλιον ³³ ,	-	-	-	Coral.
Στύραξ,	-	-	-	Storax.
Λίβανος,	-	-	-	Frankincense.
Ῥαλὰ σκεύη,	-	-	-	Glass vessels.
Αργυρώματα,	-	-	-	Plate.
Χρῆμα,	-	-	-	Specie.
Οἶνος ἔ' πολὺς,	-	-	-	Wine.

The Exports are,

Κόστος,	-	-	-	Costus. A spice.
Βδέλλα,	-	-	-	Bdellium. A gum.
Λύκιον,	-	-	-	Yellow dye.
Νάρδος,	-	-	-	Spikenard.
Λίθος καλλαινός,	-	-	-	Emeralds, or green stones.
Σάπφειρος,	-	-	-	Sapphires.
Σηρικὰ ³⁴ δερματά,	-	-	-	Hides from China.
Ὀθόνιον,	-	-	-	Cottons.

India in modern times, came by the caravan which passed between Cabul and Cashgar, three months journey from a mart called Yar Chaun, but ultimately from China. See Finch in Purchas, vol. ii. p. 434.

³² Vestis Polymitos. Vestis filis versicoloribus contexta. But dubious.

³³ At Calicut they took gold and silver alone, or else coral, when the Portuguese came there first. Cada Mosto, p. 58. Gryneus.

³⁴ This is very dubious, and occurs nowhere else.

Νῆμα Σηρικόν, - - - Silk Thread.

Ἰνδικόν μέλαν, - - - Indigo, or Indian ink?

Such are the different articles of export and import; and the author observes, that in order to reach this port in the proper season, the ships should leave the harbour of Berenikè in Epiphi, or July; adding, that the passage down the Red Sea is difficult at so early a period, but that a favourable wind (that is, the monsoon) is more easily obtained after you have passed the straits, and the voyage more expeditious³⁵. This is in harmony with the account of Pliny, who informs us, that the passage down the gulph took up thirty days; a long time for a passage short of five hundred miles, and which proves, not only the difficulty of the navigation, but the unskilfulness of the navigators. Upon approaching the mouths of the Indus, the sea is white; and the sign of land before it is seen, is a multitude of snakes, called Graai, floating on the surface. This circumstance, which seemed fabulous to the ancients, and some of the moderns, is now known to be a fact that takes place down the whole coast of Malabar, as well as on the approach to the Indus: it is imputed to the rains of the monsoon washing down these animals³⁶ out of the rivers. I shall here also take occasion to do justice to Agatharchides, for condemning his report of a whiteness in the sea off the coast of Arabia. I am not apt to suppose every extraordinary report false, in authors ancient or modern; and I have pleasure in acknowledging the veracity of Agatharchides in this instance, on the authority of Corsali³⁷, Thornton, and Terry; Corsali's account,

³⁵ Δυσπρόβητος μὲν, ἐπιφορτώματος δὲ . . . καὶ συντομώτερος ὁ πλῆθος. Ἐπίθετος is particularly applied to winds: ventus secundus. Ἐκείνου, in this passage, I have omitted, and cannot render.

³⁶ Paolino.

³⁷ "You have twenty leagues of white sea between Socotra and Arabia." Dalrymple's Collection, p. 57. "The sea near Socotra

account, indeed, goes rather to confirm the Periplus; but the evidence of Thornton and Terry is direct, "that the sea near Socotra is as white as milk." We are every day lessening the bulk of the marvellous imputed to the ancients; and as our knowledge of the East increases, it is possible that the imputation will be altogether removed.

From the whole of the particulars collected at the Indus, there is every reason to believe that the writer of the Periplus was here in person: the minute circumstances recorded form a strong contrast with the flight notice of the Gulph of Persia and the Coast of Gaddusia; and the more circumstantial detail respecting Guzerat and Cambay, which we are now approaching, is so very remarkable, that the description could hardly have occurred, unless it were derived from information on the spot.

VI. CUTCH, GUZERAT, BARUGAZA.

THE first place we are directed to on leaving the Indus, is the Bay of Cutch or Kartsch, the Kanthi³⁰ of Ptolemy, the Eirion of the Periplus: it is said to be unexplored³¹; a circumstance appropriate to it at the present hour; and to have two divisions, the

"is as white as milk." Terry in Purchas, vol. iii. p. 1467.

Vicino al India trecento miglia, l'acque del mare si mostran come di latte che mi pare esser caufato d' al fondo, per esservi l' arena bianca. Andrea Corfali. Ramusio, tom. i. p. 178.

See Periplus, p. 36. and Agatharchides in Hudson, p. 64.

³⁰ Cantha is one of the names of Crisna, as Husband or Lord. There are still great re-

mains of Hindoo superstition in this part of India: a pagoda in Kutsen, another at Jaigat, and a third at Sumnaut—all still conspicuous; and Sumnaut and Jaigat still visited in pilgrimage. Mr. A. Hamilton.

³¹ *Adspiro*; but an English officer, taken prisoner by the pirates, was carried up it, according to Rennell. The pirates should be those of Goomtee, just to the east of Jaigat.

greater

greater and the less, both shoal, with violent and continual eddies extending far out from the shore; so that vessels are often aground before they see land, or are hurried away by the eddies and lost. The shore begins to curve as soon as you leave the Indus⁴⁰; first towards the east, next in a southerly direction, and, finally, back again to the west; till it reaches the promontory Barâkes, which shuts in seven islands with its projection. This cape represents, with sufficient exactness, the Jaigat point of our charts, and its islands within, which are at this day the retreat of a piratical tribe, visited by the English within these few years⁴¹.

If a vessel approaches this point, her only chance to escape, is an immediate alteration of her course; for if she is once well within it, it is certain destruction. The sea rolls in here, a large and heavy swell, with great violence, forming eddies and whirlpools in every direction. The soundings likewise vary from deep to shoal, or rocky, without warning; so that if you attempt to anchor, the cables are cut or rubbed by the foulness of the bottom. But the sign of approaching this bay, is another species of serpents, floating on the water, larger, and of a black colour; while those that are met with at Barugaza, and lower down, are green, with a golden hue, and of a smaller size.

From Barâkes, and the Bay of Eîrinon, the next in succession is the Bay of Barugaza, which terminates [south-west] on the boun-

⁴⁰ *Après le golfe*, the last station is Barbarikê. The text seems to give the name of Barâkes to the coast as well as the cape. D'Anville finds here a tract called Barseti, the Barasit of Al Biruni, p. 83.

⁴¹ In 1799. See Indian Reg. 1800, Chronicle, p. 3. The district is called Goomtee:

the pirates are said to have been driven from Kutsch, between the Indus and the head of the gulph, and to have settled on the opposite shore of Guzerat, since called Little Kutsch. They are the Sanganians of our early navigators, the Sangadæ of Nearchus.

dary of Ariakè⁴², the territory of Mámbarus, who is sovereign also of all India⁴³. Inland, on the north, the district of Barugáza joins to Scindi, and is subject to the Parthians of Minnagar; and the sea-coast, from Scindi towards Guzerat, is called Surastrênè. It produces abundance of corn, rice, oil of sesamum, ghee, and cotton for ordinary manufacture; and the cottons of Minnagar are carried to Barugáza for exportation. The natives are black, and men of large stature, and the herds of cattle in the country are numerous. Surastrênè⁴⁴ must therefore be the Kutch of our modern charts, the capital of which is Boogebooge; a tract wholly inhospitable, and now never visited; so that we have no opportunity of knowing⁴⁵ whether it answers to the account of the Periplus or not.

The passage from Barbarikè to Barugaza is [not made along shore by the Bay of Eírinon and Barákes, but] strait across to the headland of Papíka⁴⁶, which lies opposite to the harbour of Barugáza, and in the neighbourhood of Ástra Kampra and Trápera. This

⁴² Ἡ πρὸς τῆς Ἀριακῆς χώρας τῆς Μαμβάρου βασιλείας ἀρχή, καὶ τῆς ὅλης Ἰνδικῆς ἑσὶν. The beginning of Ariakè, marks the distinction; for Barugaza was subject to Minnagara. Ἀριακῆς for Ἀραβικῆς, is the undoubted correction of Stuckius. Surastrène; Mr. Hamilton interprets it Sri-rastra, the *Lord of Prosperity*. Jaggat, *the World*.

⁴³ *All India* is a large expression; but it cannot comprehend more than the northern part of the peninsula of India, in opposition to Scindi and Guzerat, in that age, under the Parthians. Such a king as the Balahara of Al Edrissi (p. 62.) would correspond sufficiently; for Balahara signifies *King of Kings*, according to his interpretation; but Mr. A. Hamilton says it implies, the *Overthrower of Armies*.

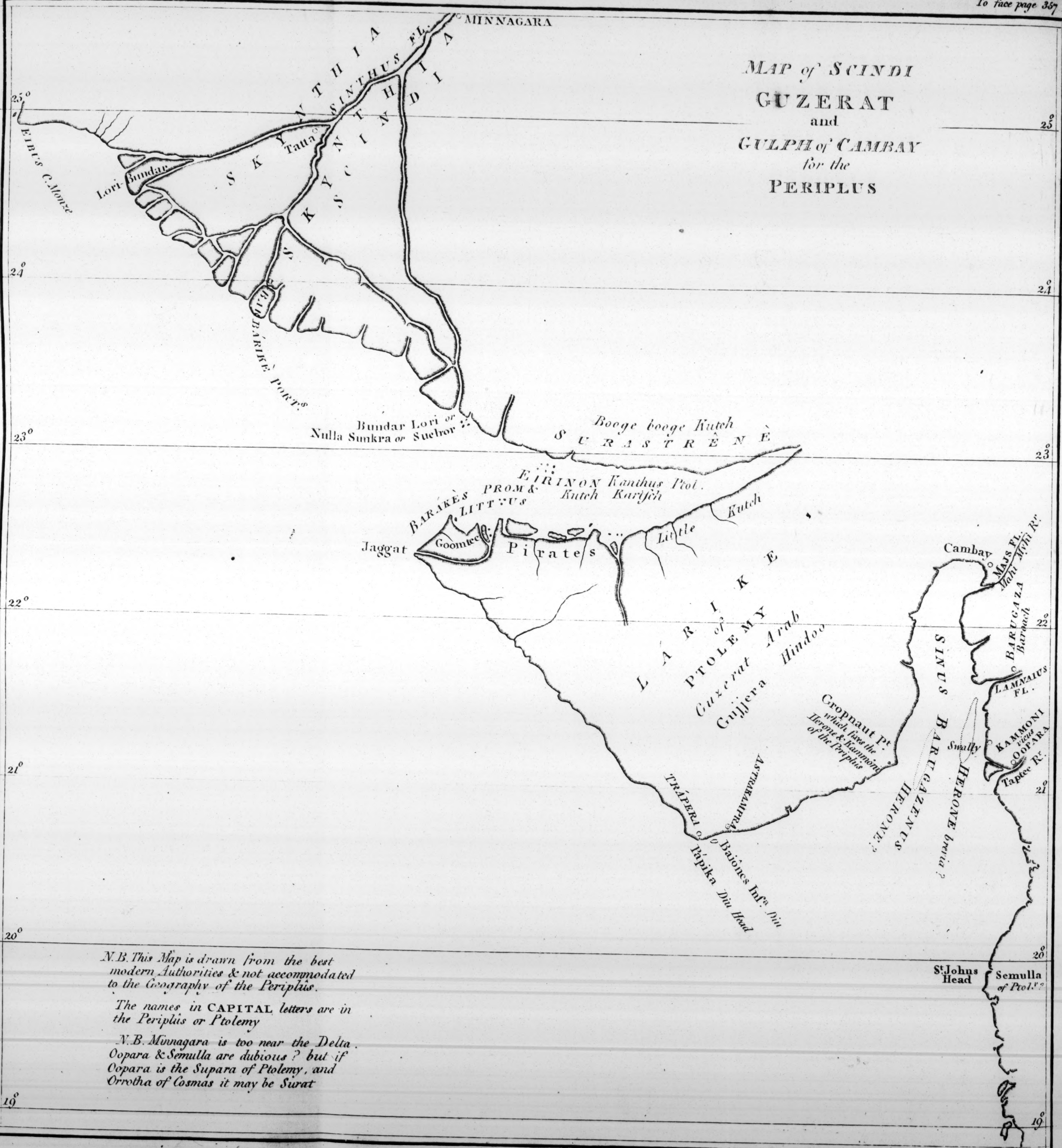
⁴⁴ Surastrênè is not so absolutely confined in the text to Kutch, that it may not extend to the coast of Guzerat also; but in allotting it to Kutch only, we unite the account in the Periplus with the geography of Ptolemy; and the text itself is so corrupt that we are utterly at a loss; for it says, the inland part of Scythia touches on Iberia. Iberia is certainly a false reading, but what ought to be substituted for it is dubious: Hudson, or Stuckius, read Σαβυρία, from Ptolemy; and Ptolemy has Παταρία, καὶ ἡ ἐν τῇ πελοποννησῷ Σαβυρία, p. 172.

⁴⁵ Orme says, it furnishes a good breed of horses, which implies pasture for other cattle also. Hist. Fragments, notes, p. 107.

⁴⁶ D'Anville finds here a Soto Papera, for Ásto Papíka; but upon what authority he does not mention. Antiq. del Indé, p. 83.



MAP of SCINDI
GUZERAT
and
GULPH of CAMBAY
for the
PERIPLUS



N.B. This Map is drawn from the best modern Authorities & not accommodated to the Geography of the Periplus.

The names in CAPITAL letters are in the Periplus or Ptolemy

N.B. Minnagara is too near the Delta. Oopara & Semulla are dubious? but if Oopara is the Supara of Ptolemy, and Orrotha of Cosmas it may be Surat

cape forms the western point of the Bay of Barugáza, at the extremity of which lies the Island of Baiônès⁴⁷; and from this point the coast runs northerly till it reaches the head of the gulph; there it receives the river⁴⁸ Mais [and then returns again south to Barugáza itself, and proceeds, in the same direction, to the main coast of the peninsula.] It is added, that the passage from Scynthia to Baiônès is three thousand stadia, which agrees sufficiently with the actual distance of about three hundred miles.

Among all these particulars, there is not a single circumstance which does not accord⁴⁹ with the actual nature of the voyage at the present day, from Scindi Bar to Diu Head; for Baiônès⁵⁰ is Diu⁵¹; and from Diu, the coast runs N.E. to the head of the Gulph of Cambay, where we find the River Mahi, as the representative of Mais. From Mahi the direction of the shore is south to Baroache, the Barugáza⁵² of the journal on the Nerbudda, which the Periplus calls the Lamnais, and Ptolemy the Namádus⁵³, still written Narmada in some of the Hindoo books. The other part of the account, which at first seems to intimate that the bay is thirty miles across,

⁴⁷ Baiônès is Diu; and, if I understand it rightly, this island, and the coast towards Jaigat, is the Chesmaerran of Marco Polo: in his time, all the trade here was in the hands of Arabs.

⁴⁸ Ἐν δὲ τοῖς ἰσχυράτοις τόποις μέγιστος ποταμὸς ὁ λεγόμενος Μάις.

⁴⁹ On peut dire ainsi, que ce qu'on acquiert de notions par le Périples, est satisfaisant et positif. D'Anville, Antiq. de l'Inde, p. 86.

⁵⁰ I conjecture that Diu is the Avi Caman of Al Edrissi, because he reckons one day and a half's sail from Cambay to Avi Caman, and two from Avi Caman to the Indus. They are courses far too long for an Indian ship,

but the central point seems relative. He speaks magnificently of the trade of Cambay in his time; and extensive it continued, till the greater proximity of Surat to the open sea attracted the trade to that port.

⁵¹ Diu is *Dive*, the Isle. Diu Head is Pa-pika, the cape immediately west of Diu.

⁵² Barugáza signifies the *Water of Wealth*, from Bari, *water*, and Gaza, *wealth, riches, treasure*, or treasury; the same in Sanskreet as in Persic. Mr. A. Hamilton.

⁵³ Asiatick Researches. Is it not Nahr-Bhudda? or Nahr Mahadeo? The Soane, its kindred stream, is called Soane-Budda.

will perhaps bear a more favourable construction, which I submit to the judgment of the reader: [" Upon arriving] at this⁵⁴ gulph, " those who are bound to Barugáza [keep clear of the land on " either side] and pass up the open channel for thirty miles, leaving " Baiônès on the left, till it is scarcely visible in the horizon, [their " course is] then east to the very mouth of the river that leads " to Barugáza."

The passage into this gulph is narrow, and difficult of access when you approach it from the sea, lest you should be carried away to the right hand or the left. The left side is the best; for on the right there lies a stripe of shoal, rough and broken, called Herônè, near the village of Kammôni⁵⁵; and this shoal of Herônè, notwithstanding the shifting to which sands are liable, is not undiscoverable at the present day, or at least a representative for it, which will sufficiently elucidate the account in the journal. The charts and maps are full of shoals; De la Rochette has one extending from Swally to below Daman, and others without it; and a particular one off Groapnought Point, which seems to be the Jamteir Shoal of Skinner, corresponding with the situation required: all of them are long, narrow stripes, like the Fillet [ταινία] of the Periplus, caused

⁵⁴ [Κατὰ] Τῆτον τὸν Κόλπον, τὸ πέλαγος ὡς ῥαδίαν τριακοσίων ὁ πλέοντες εἰς Βαρυγάζαν διαπερῶνται· ἐξ ἐναντίων ἀκροφάνῃ καταλιπόντες τὴν νῆσον, καὶ εἰς αὐτὴν ἀνατολὴν, ἐπ' αὐτὸ τὸ τόμα τὸ ποταμὸν, Βαρυγάζαν. Κατὰ must be understood either with τὸν κόλπον, or τὸ πέλαγος: I prefer the first, as usual in the journal. Τὸ πέλαγος I render *clear channel*, as *open sea*, in comparison of a course along either shore; ἀκροφάνῃ is, scarcely appearing, scarcely visible; διαπερῶνται need not be taken in the strict sense of *crossing*,

but may signify *passing through the sea*, for 30 miles up the channel.

⁵⁵ Kammôni is sufficiently marked here on the side of the Gulph of Cambay, opposite to Diu, to shew that it cannot be far from the position of Surat, or at least must be south of Barugáza; and so Ptolemy places Kamanes in his most distorted map of this coast; and yet Major Rennell says, Cambay appears to be the Camanes of Ptolemy. *Memoir*, last edit. p. 210.

apparently

apparently by the rapidity of the tide, which throws up the sand, but will not permit it to accumulate in breadth. On the left, opposite to Kammôni, near the promontory of Afta Kampra, lies the cape called Pápika⁵⁶: here it is difficult to anchor, both on account of the current, and because the cables are cut by the foulness of the bottom. But even when the passage into the gulph is secured, the mouth of the Barugáza River is not easy to hit; for the coast is low, and there are no certain marks to be seen: neither, if it is discovered, is it easy to enter, from the shoals⁵⁷ which are at the mouth. For this reason pilots are appointed by government, with attendants in large boats, called Trappaga and Kotumba; these vessels advance as far as Surastrênè, or Kutsch, and wait there to pilot the trade up to Barugáza. Their first service, at the entrance of the gulph, is to bring round the ship's head, and keep her clear of the shoals: this they do by means of the many hands they have on board, and by taking the vessel in tow from station to station, which stations are all known and marked, they move with the beginning of the tide, and anchor as soon as it is spent at certain berths that are called Basons⁵⁸; and these basons still retain water after the tide is out, all the way to Barugáza. The town itself lies thirty miles up the river; which fact directs us to Baroache, without a possibility of mistake.

The difficulty of navigating this bay affords a sufficient reason why Barugáza should be more flourishing than Cambay, and Surat

⁵⁶ Pápika, *criminal, guilty*, barbarous. Mr. A. Hamilton. it would explain many particulars here mentioned.

⁵⁷ It was very late that I saw Skinner's Chart, by favour of Mr. Arrowsmith. His Memoir I have not seen; but I am persuaded, ⁵⁸ Κυβήκας, literally, kettles; from κύβηξ, obsoleto; χυβήκας, Hefych. Salm. 83.

preferable to Barugáza or Baroache; and yet Cambay was a great place of trade when Tavernier was in India. Mr. Hamilton adds, that the people of Cambay were formerly heterodox, or Bhuddists; and that Ariakè, which corresponds with Kemkem, or Concan, is the Country of *Believers*, probably in contrast to the inhabitants of Cambay. How wonderfully does this accord with the rise and success of Sevagee, and the Mahrattas, the restorers of Braminism in India, and the conquerors of the Mahomedan powers? The native superstition would naturally survive in the mountainous regions of the peninsula, while the Mahomedans overran the plains of Hindostan; and if Ariakè does signify the Country of Believers, it is a proof that this part of the peninsula was, in the earliest ages, celebrated for its attachment to Braminism. The Mahratta chiefs are many of them Bramins; but when in power, we find nothing of that meek spirit of the Hindoos so much vaunted in Europe: they have dethroned their sovereigns; they are the most cruel ravagers and invaders; equally greedy of desolation as plunder; they have destroyed much, and restore nothing: in short, they have made it a question, whether the whole people were not happier under the government of the Mahomedans, than their own. The house of Timour was a mild dynasty; Aurengzebe, indeed, was a tyrant, a persecutor, and a hypocrite; but Acbar was the father of his country. But to return,

The circumstance of the tides is not peculiar to this place, though they are more violent here than elsewhere; for almost all the rivers of India are large, and have both the flux and reflux of extraordinary strength, conforming with the moon, new and full, as well as for three days after each, and falling off again in the intermediate space;

space; but at Barugáza this violence is more remarkable, so that without warning you see the bottom laid bare, and the fides next the coast, where vessels were sailing but just before, left dry as it were in an instant; again, upon the access of the flood-tide, the whole body of the sea is driven in with such violence, that the stream is impelled upwards for a great number of miles, with a force that is irresistible. This makes the navigation very unsafe for those that are unacquainted with the gulph, or enter it for the first time. No anchors are a security; for when the vehemence of the tide commences, there is no intermission, no retreat: large vessels caught in it are hurried away by the impetuosity⁵⁹ of the current, and thrown on their fides, or wrecked upon the shoals; while the smaller ones are completely overfet⁶⁰. Many also that have taken refuge in the creeks, unless they have fortunately changed⁶¹ their place in due time, (which it is very difficult to do, on account of the instantaneous fall of the water,) upon the return of the tide are filled with the very first head of the flood, and sunk. But all these circumstances united concur more especially, if the new⁶² moon falls in conjunction with the night tide; for then, if you have been prepared to enter upon the first of the flood, and when the sea appeared perfectly calm, you shall hear, in a moment, a rushing sound like the tumult of battle,

⁵⁹ Τῇ Ἰνδία is a corruption for which nothing occurs. Perhaps προλήφθαι τῇ Βία?

⁶⁰ So the Oriental Navigator says, "Near Dagom the tide runs so rapidly, that if the vessel should take the ground she must overfet immediately, and in all probability every soul on board perish, which often happens through the neglect or obstinacy of the pilots. P. 207. Another part, near Gogo, is described as very dangerous, and environed with rocks and

shoals; and he notices that the tide runs six miles an hour. P. 206.

⁶¹ Ὅτι ἂν μὴ διερίσῃ. Dodwell reads διερίσῃ, rowed off, rowed through; which I follow.

⁶² Συμμηνίας, the moon in conjunction with the tide. But συμμηνίας does not occur in the lexicons: may it not be νεμνίας? Hudson renders it interlunius, which has little to do with high tides.

and

and the water driving forward with the utmost impetuosity, covers the whole of the bare shoals in an instant.

It will immediately appear, that this description relates to that sort of tide which is called the Bore⁶³, and is common to many places in Europe as well as India. On the coast of Egypt, or in the Red Sea, the author could have seen nothing that resembled it, and he dwells upon it, therefore, with more minuteness than a modern observer would employ; but from this very cause it is that we have a picture which cannot deceive us, and a conviction that the author relates what he had himself experienced.

We come next to the enumeration of the countries with which Barugáza is connected, and its relative situation with regard to the provinces that surround it. Among these, on the north-west, lie the Aratrii, Rachooi⁶⁴, and Tantháragi, names with which we are totally unacquainted, as they do not occur in any other author; but that they lie towards the north-west, between Guzerat and Multan is manifest from the succeeding district of Proklaïs, which comprizes the city of Bookephalos, for that we know to be in the Panjeab. He then adds, that beyond Proklaïs, still farther to the north-west, lies the province of Bactria, governed by its own⁶⁵ kings. Here we may observe, that the country between Guzerat and the Indus is to this day less known than any other part of India: it is a sandy

⁶³ See the description of the Bore, called Macareo, in Pegu, by Cæsar Frederick. He mentions stations in that river like these; and adds, that the Macareo in Cambay is nothing equal to that of Pegu. Hackluit, ii. p. 234.

⁶⁴ The Rachooi are the giants of India, as I learn from Mr. A. Hamilton, of Edinbro'.

⁶⁵ Bayer's catalogue of Bactrian kings ends 134 years before our era, and therefore he has

no king for the age of the Periplus. For ὑπὸ βασιλείᾳ ἔσαν ἴδιον τόπον, he proposes to read ὑπὸ βασιλευσιν ἰδίαις ὄντων. And some correction is wanting; for ἔσαν neither agrees with ἴδιος or τόπον. May not the merchant of Periplus have heard of a Bactrian dynasty, and assigned it to his own age after it was extinct? Bayer imputes the age of the Periplus to Aurelius Antoninus. Hist. Bact. p. 98.

desert,

desert, affording refuge to tribes of Rajpouts, Hendouans, and Ashambetis, called Jams, who are all without fixed habitations, and plunderers like the Arabs. These may correspond⁶⁶ with the hordes mentioned by the author; but from Minnagar upwards, to the Panjeab and to Bactria, we can follow him with more precision; for in these parts, he says, there still remain memorials⁶⁷ of Alexander and his conquests on the Indus; such as altars, the entrenchments of his camps, and very large wells. The last particular seems evidently to refer to the wells which Alexander opened in his three days march to the East from the eastern branch of the Indus: they were on the route to Guzerat; and the route between the Indus and that province is kept open, at this day, only by wells of this description in the desert. But we are told afterwards, that Alexander marched eastward from these countries to the Ganges⁶⁸, neglecting Limúrikè, and the whole peninsula on the south. This only proves that our author was a much better merchant than an historian; but he redeems his error by the preservation of a circumstance which fell under his own observation; which is, that coins with the Greek inscriptions of Menander and Apollódotus, who reigned in this country after Alexander, were still current in Barugáza.

⁶⁶ Hudson wishes to convert Aratrii into Arii, and Rakhoofi into Arachosii. So far as Aria and Arachosia are connected with Bactria, there is reason in this; but if there is any order observed in arranging these tribes, they ascend with the Indus to Moulton and

the Panje-ab, and thence with a north-westerly direction to Bactria.

⁶⁷ *ἱερὰ ἀρχαῖα*. Sacella, Hudson.

⁶⁸ It will be readily allowed, that an author who could fall into this error, might be mistaken in regard to the kings of Bactria.

VII. KINGDOM OF BACTRIA, TÁGARA, PLÍTHANA, OZÈNÈ,
DEKAN.

THIS Apollódotus is hard to discover, even by the scrutinizing accuracy of the learned Bayer; but Menander he has introduced into the catalogue of his Bactrian kings, and with a most peculiar distinction, that he had extended his sovereignty down the Indus, and over the Delta of the Patalene⁶⁹. This extraordinary influence of the Greeks, in these distant regions, is no more to be wondered at, than the erection of kingdoms by the descendants of officers of Ginghiz Khan, Timour, or Nadir Shah: the heads of a conquering army are all as ready to divide an empire, as the successors of Alexander; and the officers of these successors, as eager to revolt from their principals, as the principals from the family of the conqueror; thus rose the kingdom of Bactria, by the revolt of Théodotus from the monarch of Syria, which maintained itself for near an hundred and twenty years, and consisted at one time of a thousand cities: similar to this, perhaps, was the sovereignty of Apollódotus, who seems to have had some provinces towards the sources of the Indus, which, in the obscurity of the Syrian history, cannot now be ascertained, and the memorial of which is preserved almost exclusively in the Periplus.

That the coins⁷⁰ of these princes should pass current at Barugáza,

⁶⁹ See Strabo, p. 471. Bayer, Hist. Bactrian, p. 80.

⁷⁰ Paolino informs us, that P. Pavoni, a missionary in Mysore, found a coin of Claudius in the river Caveri. P. 98.

Renaudot's Arab, p. 15. mentions a Thatarian drachm, which weighs half a dram more than the Arabian drachm. But this is not a foreign, but a domestic coin; it bears the die of the prince.

is no more uncommon⁷¹ than that the Venetian sequin⁷², and Imperial dollar, should be at this day current in Arabia, or that the Spanish piastre should pass in every port of India and the East; that is, round the world from Mexico to Manila, and in some instances, perhaps, from Manila to Mexico again. A fact still more worthy of notice is not to be omitted, as it is an observation appropriate to a merchant⁷³; which is, that the denarius, either gold or silver, was exchanged with advantage against the specie of the country. This is in correspondence with the testimony of Cosmas, almost five hundred years later; who takes occasion, at Ceylon, to mention, that the Roman money was received, and trade carried on by means of it, to the utmost extremity of the world, no nation having a [standard of] coin pure enough to compare with the Roman. And it is a truth (as I learn from Clark on Coins), that the Byzantine standard was not only the purest, but most permanent, of any in the world.

Before we can proceed to the commerce of Barugáza, we have other relative situations to consider, as Ozênè on the East, and Plithana, and Tágara, on the south-east. These Lieut. Wilford has concluded to be Ougein, Pultanah, and Deoghir. There is every reason to adopt his conclusions; and if, after the several circum-

⁷¹ Niebuhr says, vol. i. p. 137. that Greek, Persian, and Roman coins are still current in Curdistan; and Nicolas di Conti Ramusio, tom. ii. p. 286. mentions the Venetian ducat as current in India in 1440, that is almost 60 years before the Portuguese reached India.

⁷² On the coast of Malabar, women appear at this day ornamented with sequins, coins of Portugal, and English guineas, by way of necklace. Moore's Narrative, p. 293.

⁷³ I do not wish to deprive either Bayer, or Robertson, or Maurice, of the honour of these observations, previous to the present publication; but they could not be omitted here, as forming part of my plan; and I had obtained my information previous to consulting any of their works. An author, in the legal phrase, *takes nothing* by such an assertion; he deserves nothing but what the reader pleases to allow him. See Bayer, Hist. Bañ. p. 108.

stances already enumerated, we have cause to think highly of the information of our author, we shall be disposed, after tracing these several connections, to allow that there is no specimen of ancient geography so completely satisfactory, or so consonant to truth, as the portion now under contemplation.

Towards the east of Barugáza lies Ozênè, which was formerly the capital of the country. What are we to understand by this, but that the Parthians, who were now masters of Minnagar, and possessed of Guzerat, had driven the native Hindoos out of power, and seized upon the government of these provinces themselves? And what do we see in this, but the prototype of the Mahomedan usurpations, which have been too faithfully copied by European powers? and whose place we now occupy as masters of Surat, Baroache, and Cambay, at the present hour. When the Europeans first reached India, Surat was the principal seat of commerce on the north, as Calicut was on the south; and the merchants of Guzerat were the richest and most active traders in India. Surat is not more than forty or fifty miles from Baroache, and Baroache⁷⁴ is the Barugáza of the Periplus. In the age of that work, the merchants of this country were not less vigorously engaged in their pursuits: they traded to Arabia for gums and incense, to the coast of Africa for gold, and probably to Malabar and Ceylon for pepper and cinnamon. If I could find any thing in history to countenance the idea of the Hindoos⁷⁵ being seamen⁷⁶ in any age, I should place them

⁷⁴ Al Edrissi calls it Berug, and Beruts; the English now call it Broche. Strabo writes Bargosa. D'Anville, Geo. Anc. p. 88. But this is dubious; for the Bargossi of the Periplus are on the other side of the peninsula.

⁷⁵ Quello che bee vino non si receive per

testimonio, ne quello che naviga per mare perche dicono che chi naviga per mare è desperato. Marco Polo, lib. iii. c. 20. p. 54. — This relates to the Hindoos of Coromandel.

⁷⁶ Sir William Jones has supposed, that, from Bottomry being mentioned in the laws of

them in this province. But as Barthema informs us, that in his time the Hindoos at Calicut⁷⁷ left all navigation to the Mahomedans, so it should seem that the prohibitions of their religion had been uniform from all ages. Pliny speaks as strongly of the Arabs on the coast of Ceylon; and Arabs⁷⁸ there must have been at Barugaza for the same purpose, unless it should be discovered that there was some cast, of a degraded sort, that supplied their place. Fishermen there are, but they can cook and eat their food on shore; and even fishermen are an abomination in Malabar. Merchants, however, may grow rich at home, while other nations are their carriers; and that the greatest trade of India was in that age fixed in Guzerat, is evident, not only from the enumeration of articles at this port, but from the general importance it bears in the mind of the author, and the circumstantial detail of all that is connected with it.

The connection with Ougein⁷⁹, and the mention that this place was once the seat of government, is in perfect conformity with

of Menu, the Hindoos must have been navigators in the age of that work. Now, that ships of Hindoos went to sea, and that a proportionate interest for the hazard of the sea was to be paid on money borrowed, must be true; but it remains to be proved that the seamen were Hindoos. And his endeavour to prove that they used the sea in former ages, proves that it is contrary to their principles and practice in later times. It is only within these very few years that the English have been able to carry their sepoy by sea; and in doing this, there seems to have been employed money, discipline, and a variety of fictions to save their conscience.

⁷⁷ In urbe Calicut qui Idola colunt [Hindoos] non fulcant maria, id munus Mahometanis delegatur. Quorum numerus in ea civi-

tate sola excedunt quindecim milia. Barthema apud Grynæum, p. 112. And in Orme's account of the fleets near Bombay, one party were Siddees, or Abyssinians, and the other Arabs chiefly. Angria was a Hindoo, as well as Sevagee; but his fleets were full of Arabs, and so were those of his predecessors. See the attack made on an India ship called the President, in 1683. Orme, p. 171.—The Arabs... the first navigators in the world for the Indian seas. Sir John Chardin, in Renaudot, p. 147.

⁷⁸ When the Portuguese came to India, the Arabians transacted all the trade of the East. Renaudot, p. 173.

⁷⁹ See Hunter's journey from Agra to Ougein, India Annual Register 1800, Miscel. p. 279.

modern information; for Ougein⁸⁰, as it is at present subject to Scindia, and the capital of his jaghire, so was it, from the earliest ages, the properest situation for a metropolis, as being in the centre of those tribes of Hindoos which have been less⁸¹ intermixed with foreigners, and less subject to invaders, than the other tribes of Hindostan. Its pre-eminence and importance are still farther proved by its having been, and still continuing, the first meridian⁸² of the Hindoos, which appears from accurate English observations to be in long. $75^{\circ} 51' 0''$ ⁸³ from Greenwich, and its latitude $23^{\circ} 11' 12''$. The ruins of the ancient Ozênè are still discoverable, at a mile distance from Ougein; and coins and bricks are still dug up there, at the depth of fifteen feet or more. Pliny makes no direct mention of Ozênè, but incidentally only, as denoting a species of the spike-

⁸⁰ Written Ujjayini, Ujjein. D'Anville, India, p. 95. Ujjayini awinti, or avanti. Hunter.

⁸¹ The revolt of Sevajee, the founder of the Marhatta power, was in the time of Aurungzebe, when the house of Timour was in its meridian splendor. These Hindoos of the Dekan had never been reduced; and though the Rana of Ougein, who was the principal of the Hindoos of Agimere, had been subdued by Achar, the interior was so difficult of access, that there had always remained tribes in the mountains who were independent. Sevajee (or, as he is otherwise called, Bonfoola) first reduced the mountaineers of the Dekan into order, and formed them by discipline till he set the Mogul power at defiance: he plundered Surat repeatedly, spread his incursions on every side, and levied contributions to a vast amount. He died possessed of a sovereignty, which grew up during the decline of the empire under the successors of Aurung-

zebe, and has become the greatest Hindoo power since the first invasion of the Mahomedans.

⁸² See Asiat. Researches, Lond. ed. v. p. 194. and India Register 1800, 292. Miscellaneous longitude determined by eleven observations of Jupiter's Satellites; latitude, by eight. Another first meridian was at Lanca, or Ceylon. Paolino, p. 309.

⁸³ Jessing, or Jaya Sinha, soubadar of Meliva, in 1693 constructed observatories at Ougein, Dehli, Benares, and Matra. Sir Rob. Barker describes the observatory at Ougein, and found the latitude to be $23^{\circ} 10' 24''$, which the native observers made $23^{\circ} 10'$, seconds they do not notice; but it appears likewise that they had instruments and books from Europe. Mr. Hunter doubts the antiquity of Hindoo astronomy, and informs us, that when he was at Ougein, Jessing's observatory was turned into a foundery for cannon. Asiatic Researches, v. p. 196. Lond. ed.

nard; but Ptolemy calls it the capital of Tiaftánus, and his royal residence: he places it on the Namádus, or Nerbudda, which is the river of ⁸⁴ of Barugáza; which river is said to rise out of the same lake as the Saone, and which takes an eastern direction; so that the course of the two rivers into the sea, east and west, turn what is called the peninsula of India into an island.

D'Anville ⁸⁵ considers Ougein as the residence of Porus, who sent an embassy to Augustus. The rajah is called Rhana, and pretends to be descended from Porus, who was defeated by Alexander. Fabulous accounts of Alexander are as current in the East, as in Europe; and for the sake of proving the antiquity of his family, a prince might have the vanity to think it an honour that his ancestor was defeated and conquered. But Porus signifies a chief or sovereign: it may have been an appellative, as well as a proper name; and the sovereign of Agimere, if his influence extended over Guzerat in the age of Augustus, might have had commercial ⁸⁶ transactions to regulate with the Roman empire.

From Ozênè every sort of commodity is brought down to Barugáza, which can contribute to the supply ⁸⁷ of the country, and many articles for foreign trade ⁸⁸, comprehending

Ὀνυχίνη λίθια,	-	-	-	Onyx stones.
Μυρρίνη,	-	-	-	Porcelane.
Σινδόνες Ινδικαί,	-	-	-	Fine muslins.
Μολόχιναι,	-	-	-	Muslins of the colour of mallows.

⁸⁴ Major Rennell, in his first map, placed it on a stream that ran into the Nerbudda; in his corrected map, it is on a branch of the Sipareh, which joins the Chumbal, and falls into the Jumna.

⁸⁵ Antiq. de l'Inde, p. 95.

⁸⁶ This is upon the supposition, that the 120 ships which Strabo saw at Berenikè actually reached India.

⁸⁷ Εὐδυνία.

⁸⁸ Πρὸς ἡμετέραν ἐμπορίαν, for our trade.

Ἰκανὸν χυδαῖον ὀθόνιον, - - - A large quantity of ordinary cottons.

And many articles that only pass through Ozênè to the coast, from the country farther inland; as from the Panj-ab⁹⁹,

Νάρδος,	-	-	-	} Spikenard, of different sorts.
Καταβερίνη ⁹⁰ ,	-	-	-	
Πατροπαπίγη,	-	-	-	
Καβαλίτη,	-	-	-	
Κόσος,	-	-	-	Kostus.
Βδέλλα,	-	-	-	Bdellium. A gum.

The Imports at Barugáza are

Οἶνος,	-	-	-	Wine.
Ἰταλικὸς προηγμένως,	-	-	-	Italian wine, in preference to all other.
Λαοδικηνὸς,	-	-	-	Laodicéan wine. Syrian.
Αραβικὸς,	-	-	-	Arabian. <i>Quere</i> , Palm, or Toddy?
Χαλκὸς,	-	-	-	Brass.
Κασσίτερος,	-	-	-	Tin.
Μόλυβδος,	-	-	-	Lead.
Κοράλλιον,	-	-	-	Coral.
Χρυσόλιθον,	-	-	-	Topazes.
Ἰματισμὸς,	-	-	-	Cloth.
ἀπλῆς,	-	-	-	plain.
νόθος παντοῖος,	-	-	-	mixed, of all sorts.
Πολύμιται ζῶναι πηχυαῖται,	-	-	-	Variegated fashes, half a yard wide.

⁹⁹ Προκλαῖς.

⁹⁰ I imagine all these to be different species of Nard, taking their name from the places from which they come. And if a conjecture may be allowed, Καβαλίτη is from Kabul, a

mart through which it might regularly pass out of Tartary, or Thibet, its proper soil. Al Edrissi uses the term *Myrobalanos Kabolinos*, for the Myrobalans of Kabul, p. 66.

Στύραξ,	-	-	-	Storax.
Μελίλωτον,	-	-	-	Sweet lotus.
Ἵγλος ὠργή,	-	-	-	White glass.
Σανδαράκη,	-	-	-	Ore of Cinnabar.
Στήμι,	-	-	-	Stibium for tinging the eyes.
Μύρον ἔ βαρύτιμον,	-	-	-	Ordinary perfumes, or unguents,
ἐδὲ πολὺ	-	-	-	and in no great quantity.

Besides specie, upon which there was a profit, and the presents that went up to the king at Minnagar, as mentioned before. It is not evident why these presents were not rather landed at Barbárikè, which was the direct port for Minnagar, than at Barugáza; but our author says, that the king of Minnagar was sovereign of Barugáza also. Perhaps, by their being mentioned here, they went only to the viceroy or soubah of the province. The expression in the text is dubious⁹¹; but the context seems to imply, that from the country to which these presents went up, there came down in return, distinct from the exports of Barugáza,

Νάρδος,	-	-	-	Spikenard.
Κόστος,	-	-	-	Kostus.
Βδέλλα,	-	-	-	Bdellium.
Ἐλέφας,	-	-	-	Ivory.
Ὀνυχίνη λιθία,	-	-	-	Onyx stone.
Σμύρνα,	-	-	-	Myrrh.
Λύκιον,	-	-	-	Box thorn.
Ὀθόνιον παντοῖον,	-	-	-	Cotton of all sorts.
Σηρικόν,	-	-	-	Silk.

⁹¹ Τῷ βασιλεῖ κατ' ἐκείνης τῆς καιρῆς. Had Guzerat revolted, and set up a king of its own, at that time?

Μολόχινον, -	-	-	-	Mallow-coloured cotton.
Νῆμα, -	-	-	-	Silk thread.
Πέπερι μακρόν, -	-	-	-	Long pepper.

And other articles from the ports in the neighbourhood. Several of these are the same as those that were specified as procurable at Barugáza, and consequently we can see no reason for the recapitulation, except the different means of obtaining them from a different part of the country. Such, however, are the commodities in general derived from the North and from the East, and such was the importance of the commerce of this place in the time of Pliny. Zízeris and Muzíris, farther to the south, seem to have been the more particular object of the voyage by the monsoon, across the sea from Arabia to India direct; but in our author's age, though he mentions Muzíris, it is transiently, in comparison with Barugáza and Nelkunda: these seem to have been his grand marts. And for Barugáza, he says, the fleets left Egypt in the month of Epiphi, or July.

He still persists farther in the execution of the same design; for, after stating what was obtained from the Panj-ab and Ozênè, he proceeds next to the south, in order to shew what was the connection between Barugáza and the Dekan. This is, if the boast may be allowed, the peculiar pre-eminence of the work: it belongs to this author alone, as far as I have discovered, to give the true direction of this western coast of the peninsula, and to state, in direct terms, its tendency to the south, while Ptolemy stretches out the whole angle to a straight line, and places the Gulph of Cambay almost in the same latitude as Cape Comorin.

But the declaration of the Periplus is this:—From Barugaza, the coast immediately adjoining which ran up north [to the river Mais,
or

or Mahi], now stretches directly to the south; the country is therefore called Dakina-bades⁹², because DAKHAN, in the language of the natives, signifies SOUTH. Of this country [which is called DAKHAN] that part which lies inland, east of Barugáza, comprizes a great space of wild and desert country, and large mountains, in which are found leopards, tigers, elephants, vast serpents, hyenas, and baboons⁹³ of various sorts. [But in the inhabited parts] there are also a great variety of different nations, and exceedingly populous, quite across the peninsula to the Ganges⁹⁴. Besides this, in the territory of Dakhinabad there are two emporia, or marts, of more particular importance; for at the distance of twenty days south from Barugáza lies⁹⁵ Plithana, and ten days east of Plithana is found Tágara, which is the largest city in the country. The commodities from these two cities are brought down, through roads of great difficulty, by land-carriage, to Barugáza; that is, from Plithana, a great quantity of onyx stone; and from Tágara, ordinary cottons⁹⁶

⁹² Dakin-abad, city of the South. Dakhinabad, southern region. Bayer.—Dakhina. Paolino.

⁹³ Inter Simias, efferatior Cynocephalis natura, sicut Satyris. Pliny, lib. viii. c. 54. c. 80. Hardouin. See the authors he cites. Aristot. lib. ii. de Natura Anim. c. 13. Palmerius, &c.

⁹⁴ Τὰ μέχρι τῶν συνέγγυς, which is nonsense; and Hudson and Stuckius very properly read μέχρι τῆς Γάγγυς.

⁹⁵ There is evidently an omission in the text; for two cities are in the context, and only one of these is named. It appears that a part of the sentence, and not the name only, is wanting.

⁹⁶ The cottons here called *μολόχιναι*, Lieut. Wilford says, are those dyed of a whitish pur-

ple, like the mallow-flower. There is nothing more singular in this than in the *blue* Surats, which at this day have a constant sale on the opposite coast of Africa, in Abyssinia, and in the ports of the Red Sea. Paolino interprets *μολόχιναι*, chintz: *tele finissime dipinti et richamente*. P. 95. Fine cottons are supposed to derive the name of muslins from Mosul, on the Tigris; a name which they had in common with gold tissue and silk, because these articles were either made or to be purchased there. See Marco Polo, lib. i. c. 6. *tutti li panni d'oro & di seta che si chiamano Mossulini si lavorano in Moxul*. Notwithstanding this high authority, I am sometimes inclined to think, that *μολόχιναι* is the origin of Mosselins, or muslins; though I have nothing to build on but the proximity of sound, and conjecture.

in abundance, and all sorts of muslins, with a variety of other native productions which are not specified.

It is manifest, that of these two cities, Deoghir is Tágara, and Plithana is Pultaneh; that the difficult roads are the Ghauts⁹⁷; and the mountains, that chain which runs parallel with the coast the whole length of the peninsula, from Guzerat to Cape Comorin. The country also between Guzerat and the Ganges does contain the deserts specified, not only in the vast tract called Berar, but in many other parts of the extensive territories occupied by the Mahrattas. The animals likewise are appropriate, and the whole is such a picture as no ancient geographer supplies in so distant a quarter of the world; so accurate, that it is hardly surpassed by Strabo, in his description of the countries of Europe.

Deoghir⁹⁸ was the seat of a Hindoo government as late as 1293, when it was taken by Feroze II. and is now a ruin near Elore, within four cosses of Aurungabad, on the River Godavery. It was the capital of the province of Doulatabad; and the central situation of these three cities, afforded a convenient position to the Patan emperors, as well as Aurengzebe⁹⁹, from whence they might propagate their conquests in the Dekhan. But the subterraneous excavations¹⁰⁰

at

⁹⁷ The Ghauts are literally the passes from the low country, over the mountains, into the upper region; but are generally used for the mountains themselves.

⁹⁸ Rennell has another Deogur upon the Tapti, p. 237. and Ptolemy has a Tiagura, as well as a Tágara. His Tiagura, indeed, is on the Nerbudda; but it is doubtless Deogur, near Nagpoor. Rennell, Mem. p. 213.

⁹⁹ Aurungzebe was usually at Amednagur. Orme.

¹⁰⁰ See the wonders of these ruins displayed in the magnificent and highly-curious work of Daniel, from the drawings of Wales. There is an apparent stamp of antiquity upon these excavations, superior to those of Elephanta, Mabalipooram, &c. for there are fewer figures distorted with a multiplicity of arms and heads, there is a grace almost Grecian in several of the deities, and throughout, much less of the grotesque barbarism and obscenity than are found in the more recent structures of their superstition.

at Elore¹⁰¹, and the pagodas there, extending over a tract of two leagues at the present hour, imply an antiquity now inexorable, and preserve the vestiges of a superstition coeval with the remotest era of Braminism. These remains qualify the spot for the site of Tágara¹⁰², as early as the account in the Periplûs; and it is manifest that the author speaks of it as a capital of a province, or a kingdom at that time existing, and the centre of the commerce from the interior.

Lieut. Wilford has a dissertation¹⁰³ on this city, inserted in the first¹⁰⁴ volume of the Asiatick Researches, in which he makes the distances from Baroach agree with those of the Periplûs, by reckoning eleven miles as a day's journey for a loaded cart in that country; but twenty days south to Pultanah¹⁰⁵, and ten days east from Pultanah to Deoghir, is more than I can find by the scale of any map which has fallen under my inspection; neither do I find Pultanah mentioned in the maps of d'Anville, Rennell, or de la Rochette. Great allowances, however, are to be made for the winding of the roads, and the difficulties of the intervening ghauts; while the ruins of Elore, on the actual site of Deoghir¹⁰⁶, with the point of the

superstition. The wealth, the power, and the labour, requisite to form these excavations, equal, if not surpass, all that must have been employed in the edifices of Egypt.

¹⁰¹ Elore has been visited by Thevenot and Auquetil du Perron.

¹⁰² Deo-Ghur, the Hill of the Gods. A. Hamilton.

¹⁰³ As a commentator on the Periplûs, many thanks are due from me to Lieut. Wilford; and with the whole of his historical deductions I perfectly agree. But his translation of *κατά-μεγιστα ἀνοδία*, is refined, rather than correct: goods brought down to Baroach, or

carried up to Tagara, is a phrase as familiar in Greek as in English; and *μεγιστα ἀνοδία*, without being a translation of Bala Ghauts, fully identifies the difficulties of the roads through the mountains; *ανοδία* never signifies *ascent*, as far as I can discover, but *ἀνοδος* only; and if it did, to bring carriages down an *ascent* must be a solecism.

¹⁰⁴ P. 369. Lond. ed.

¹⁰⁵ Lieut. Wilford reckons 217 miles from Baroach to Pultanah on the Godavery.

¹⁰⁶ D'Anville has placed Tágara at Satara, in the Mahratta country. Antiq. de l'Inde, p. 108.

compass south-east from Barugáza, give a probability to the whole which is irresistible.

It were to be wished that other Gentlemen, employed in the East, would apply their local knowledge to the removal of these obscurities, as effectually as this meritorious officer has done in the present instance. Observations on the spot, confirmed by evidences peculiar to the country, form the true ground of proof, on which alone those who collect and compare in the closet ought to depend. This evidence is appealed to by Lieut. Wilford; for the name of Tágara, written with the orthography of the Periplus, occurs in a grant¹⁰⁷ of land found, engraven upon copper, in the Isle of Salset, near Bombay; and the rajah of the inland capital, by this monument, seems to have been connected with the coast, as effectually as Tágara was connected with Baroach eighteen centuries ago.

If we should now describe the arc of a circle, from Minnagar on the Indus, through Ougein, to Dowlatabad on the Godavery, of which Baroach should be the centre, we might comprehend the extent of the intelligence acquired by the merchant of the Periplus. But allowing that this was the knowledge of the age, and not of the individual only, where is this knowledge preserved, except in this brief narrative? which, with all the corruptions of its text, is still an inestimable treasure to all those who wish to compare the first dawning of our knowledge in the East with the meridian light which we now enjoy, by the intercourse and conquests of the Europeans. An arc of this sort comprehends near three degrees

¹⁰⁷ The date of this grant answers to the year 1018 of our era: it was communicated to the Asiatick Society by General Carnack, and has every evidence of authenticity. If the reader should refer to it, he will find, that in the conveyance of land the lawyers of all countries are equally liberal of words. See *Asiat. Researches*, vol. i. p. 357. Lond. ed.

of a great circle ; and if upon such a space, and at such a distance from the coast, we find nothing but what is confirmed by the actual appearance of the country at the present moment, great allowance is to be made for those parts of the work which are less perspicuous ; for the author did certainly not visit every place which he mentions ; and there are manifestly omissions in the text, as well as errors and corruptions.

VIII. ARIÁKĒ OR CONCAN, THE PIRATE COAST, AKABAROOS, OOPARA OR SÚPARA, KALÍENA OR BOMBAY, SEMULLA, MANDÁGORRA, PALAIPATMAI, MELIZÉIGARA, TÓPARAN, TURANNOS-BOAS, SESEKRÉIENAI, AIGIDII, KÁINEITAL, LEUKĒ.

THAT the author was at Barugáza, cannot well be doubted by any one that adverts to the variety and minuteness of his descriptions at that place. Whether he went farther down the coast to the south, or took his account from other voyagers, may not be so certain. D'Anville¹⁰⁸ supposes that he accompanies us to Cottonara, and then takes one bound to Comorin and Ceylon ; but I wish to make no assertion either way. My own doubts arise from the impossibility of discovering¹⁰⁹ those characteristic features, which are so easily traced in the narratives of those who have actually visited the country they describe. The coast we are now to follow, has few bold or prominent distinctions ; many rivers, but none large or majestic ; many ports, but fitted mostly for the reception of the

¹⁰⁸ Antiq. de l'Inde, p. 112.

¹⁰⁹ The district of Nelkunda is an exception to this.

vessels of the country alone; and only two capes worthy of notice, upon an extent of eight hundred and fifty miles.

Another method of inquiry is naturally suggested, by similarity of names; and of this I shall be as ready to avail myself as those who have preceded me in the attempt. Nothing, however, is more fallacious, if the situation be not as correspondent as the name; and names seem to have fluctuated more in India than in any other country that we know: a specimen we have just seen in Tágara, Elore, and Dowlatabad; all three appropriate to different ages, and all now concluded under Arungabad¹¹⁰. The names also of Al Edrissi, in the middle century, differ as much from the ancient names of Ptolemy, Pliny, and the Periplus, as they do from those of the cities and districts which are at present in existence. Mr. Orme, in the introduction to his illustrious history, has imputed this to the vanity of princes; and Tippoo Sultan confirmed this remark, by changing the name of almost every place in his dominions.

The great scope for conjecture, and the very few places which can be ascertained of all those which are enumerated upon the coast which we are now to investigate, is compensated, in some degree, by the appropriate description of the provinces or districts we are to visit. I agree perfectly with Major Rennell, in considering this as an object of much greater importance, than the placing of a town or a harbour on the map. And the fact is, that the different nature and properties of the districts are indelible; while the site of cities

¹¹⁰ Aurungabad takes its name from Aurungzeb, and seated here or at Amednagur, in a central situation. He carried on his inroads into Golconda, Viliapour, and the states of Sevajee; trusting his armies to his sons and his generals, and directing them all from this point. This bigot, hypocrite, and tyrant, is the primary cause of all the miseries that Hindostan has experienced for almost two centuries.

or fortresses has been changed, according to the prevailing interests of the day, or the caprice of conquerors.

The whole western face of the peninsula, from Cambay to Cape Comorin, is nearly equal to fifteen degrees of latitude. This extensive tract appears upon the map divided into six provinces, or districts, under the names of Cambay or Guzerat, the Concan, the Dekhan, Canara, Malabar, and Travancore¹¹¹. Correspondent to these, we have in the *Periplûs* the province of Barugáza, the Láríkè of Ptolemy, equivalent to Guzerat; Ariakè¹¹² to Concan, or the Pirate Coast, between Bombay and Goa; Limúrikè to Canara, between Goa and Malabar; the Kingdom of Pandion, answering to the upper part of Malabar, including Calicut and Cochin; Paralia to Travancore, as far as Cape Comorin; and the Pearl Fishery, extending from Comorin to the Islands of Rami-ceram and Manar. The limits of these will appear distinctly in the prosecution of our inquiry; and if we fix the boundary of Láríkè at the Tapti, and include the modern Dekhan of the coast within the confines of Ariakè, our ancient geography will prove consistent with the modern division of the provinces. For, notwithstanding the fluctuations of power, or the change of masters, these are marked by characteristics that seem indelible. The only difference is, that the *Periplûs* has no specific district equivalent to the Dekhan, but uses that term, in its general acceptation, as it is employed at the present day, embracing the provinces of the peninsula in contra-distinction to Hindostan.

¹¹¹ Travancore, though a kingdom of itself, or Cottonara, do not occur in the form of is generally included in Malabar, as well as substantives throughout the work. I conclude Calicut and Cochin. that Papikè, the correspondent name to Diu

¹¹² Αριανή, Λιμυρική, Κοττοναρική, are all adjectives with γῆ implied; but Aria, Limyra, Head, is an adjective likewise.

The Periplus seems to apply the name of Barugáza to the province as well as to the port; and this possibly, because at that time it was subject to Minnagar; but Ptolemy calls it Larikè, and makes it part of the kingdom of Ozênè, with the other towns or places on the River Namadus or Nerbudda; and as long as there was a regular Hindoo power at Ougein, that city seems to be the natural metropolis of the country. With equal propriety, the Tágara of Ptolemy and the Periplus, is connected with the Pirate Coast, both comprehended in the province of Ariakè, and both subject to Baleo-koorus, whose capital was at Hippokoora, supposed by D'Anville¹¹³ to be the Balhara¹¹⁴ of Al Edrissi¹¹⁵. His title was King of Kings, and he was connected with another prince or rajah at Baithana, called Siropolémus¹¹⁶, whom Lieut. Wilford¹¹⁷ makes the Salibaham of the Hindoos, and his metropolis, Pattán. I am not sufficiently informed, to confirm or invalidate these opinions; but I find that the Balahara¹¹⁸ of Al Edrissi resided at Naherwalleh¹¹⁹, the ancient capital of Guzerat, prior to Amedabad; and if so, Ptolemy would have placed Hippokoora¹²⁰ in Larikè, and not in Ariakè, where it now

¹¹³ Antiq. de l'Inde, p. 93.

¹¹⁴ Paolino places the Balahara in Concan (Kemkem), on the authority of Renaudot's Arabians. Balhara, he says, is Balia Raja, Great King; but if in Concan, he is certainly not the Balhara of Al Edrissi. He adds, "Se D'Anville avesse fatto il viaggio dell'India, prima di scrivere la sua Antichità dell'India, non avesse commessi tanti spropositi nei suoi libri." P. 98. He treats none of us who write at home with greater civility. Hippokoora, the capital of Baleo-kooras in Ptolemy, is in Concan, or what in his map answers to Concan, and not to Guzerat.

¹¹⁵ P. 62.

¹¹⁶ Sri, or Shri, is an inferior title of respect,

like our *Sir* or *Mr.* See inscription at Tanna. Af. Researches, vol. i. p. 367. Lond. ed.

¹¹⁷ Dissertation on Tágara, p. 373.

¹¹⁸ See Bayer, Hist. Reg. Bañt. p. 29. who cites several Oriental authorities, but determines nothing.

¹¹⁹ Nahroara, Nahrwara, Nahrwallah.

¹²⁰ Hippokoora, compared with the relative situation of places round it, might lead us to something not very distant from Poona, the present seat of the Mahratta government, were it not on a river that comes into the Western Sea. Poona is above the Ghauts, about 100 miles S.E. from Bombay; and there is no river, on this part of the coast, that comes from the other side of the Ghauts.

stands in his geography. But I am persuaded that both Ptolemy and the *Periplus* agree in the general division and relation of *Larikè* and *Ariakè*, and differ only in the appellations they have adopted. The names of places, rivers, mountains, and provinces, in Ptolemy, are as astonishing as his errors in position, longitude, and latitude, are manifest. His positions, however, are for the most part relatively right, though they are essentially wrong; and the errors of his longitude, in which he is principally mistaken, must have arisen from his manner of acquiring information—by interrogating the merchants and mariners at Alexandria, whose reports were from memory, and not from journals. But it is evident, that many of these must have penetrated far inland, otherwise he could not have left us the great outline of truths which is still manifest in his works, and which makes us forgive all his particular errors, in consideration of the general and important information that we obtain.

VIII. I am now to enter upon the description of this coast, incidentally traced by Hardouin, Robertson, Rennell, Paolino, and many others; but where no one has regularly gone before me, through the whole extent, except d'Anville. His conclusions I shall be compelled to question, but it will not be done without diffidence on my part, and without due respect to his learning and abilities; for d'Anville is the first writer, properly speaking, who has taught us to investigate the geography of the ancients, by tracing the characters of different coasts and countries as they exist at present: to him we look up, as to a master in this branch of the science; and even where his errors are demonstrable, we cannot but respect the extent of his learning, experience, and information.

At the commencement of our inquiry, the first information we receive from the Periplûs is, that the extent of the coast from Barugáza to Limúrikè is seven thousand stadia, or seven hundred miles; but as this would carry us, at one step, to Mount d'Illi¹²¹, it is rejected by Rennell, d'Anville, and I believe all the writers who have examined the subject. The commencement of Limúrikè, our author has placed at Naôora, Tyndis, and Muziris. And as it will hereafter appear that these places must be near the northern limit of Canara, and that therefore we have every reason to conclude Limúrikè has nearly the same limit as that province, we cannot take off less than two hundred from the seven hundred miles, to preserve the proportion of the coast. This is one reason, among others, which may induce a doubt, whether or not the writer of the Periplûs performed this part of the voyage himself.

The first places mentioned, upon leaving Barugáza, are

*Akabároos*¹²², *Oôpara*, and *Kalliena*.

In

¹²¹ In consideration of this circumstance, and my general dependance on the measures of the Periplûs, I was originally disposed to consider Ariakè as comprehending the whole coast, from the Tapti to Mount d'Illi; and if the Province of Limúrikè were to commence at that cape, the islands off the coast of Limúrikè, that produce the tortoise-shell, according to the Periplûs, and which may be well assumed for the Lack Dives, correspond better with a Limúrikè south of d'Illi, than north. But the strong ground that Rennell has taken for assigning Nelkunda to Neli-ceram; the circumstances at that place according so essentially with the ancient account; the division between Limúrikè and the Kingdom of Pan-

dion, that is, Canara and Malabar; added to the correspondence of the islands on the coast, made me prefer the arrangement which I have adopted. The detail of this will be explained at large as we proceed.

¹²² It is not affectation, or a love of singularity, that induces me to assume the Greek kappa, rather than the c of the Latins, or the English diphthong oo, for the Greek ou; but a hope that the true sound, and true orthography, may direct the eye or the ear of modern travellers, or voyagers, to the discovery of ancient names. The distortion of European names by Oriental writers is astonishing to us; and our mode of expressing Oriental sounds, received by the ear, must be equally offensive to

In regard to Kalliena, all suffrages¹²³ are united to fix it in the neighbourhood of Bombay; for Bombay is upon an island, close to which, on the main, was an ancient city called Gallian. The ruins of Gallian still remain, and are noticed by Fryer¹²⁴ in 1675, as the most glorious ruins in the Dekhan the Mahomedans ever had to deplore. His account proves it to have been a city of the Hindoos, and its situation commanding Basseen, Salfet, and Bombay, gives it a pre-eminence as a mart of commerce in all ages.

But if we have so much concurrent testimony for fixing Kalliena near Bombay, we have almost two hundred miles of coast on which we are to look for the other two places named; and if Oôpara be the Soopara of Ptolemy, as is generally allowed, it must be a place¹²⁵ of some note¹²⁶; for Subara is joined with the mention of Cambay, in the middle ages, by Al Edrissi. It is supposed, by d'Anville, to answer to the Sefareh el Hende of the Oriental geographers, in contradistinction to the Sefareh el Zinge on the coast of Africa, which is the Sofala of the Portuguese; and these two Sofalas, one in India, and the other in Zanguebar, are supposed to be in constant habits of mutual commerce and correspondence, by means of the alternate monsoons.

An intercourse of this kind between Guzerat, and the coast of Africa, I have mentioned in the former part¹²⁷ of this work, which

to their perceptions. Ebn Haukal writes Sakaliah, Akrites, and Kibres, p. 53. which would certainly require some attention of the mind before a common reader would discover that they are Sicilia, Creta, and Cyprus.

¹²³ Orme, Rennell, Robertson, d'Anville, &c. Cosmas has Caranja in the harbour of Bombay.

¹²⁴ Orme, Hist. Fragments, note 30.

¹²⁵ It was the see of a bishop, as early as the sixth century. *Καὶ ἐν τῇ Καλλιάνᾳ δι τῇ καλεσμένῃ καὶ Ἐπίσκοπος ἔστι ἀπὸ Περίδος χειροτονή-μενος.* Cosmas Paoline 100. That is, from Mosul of Marco Polo. Lib. i. c. 6.

¹²⁶ Supura signifies a splendid city. A. Hamilton.

¹²⁷ Pages 145, 146. 253.

the Periplûs describes as previous to the voyages of the Greeks in the Indian Ocean, and totally unconnected with them ; conducted by native merchants on both sides, or by Arabs, who were carriers for both. On this latter point there can hardly be a doubt, when we find that the vessels employed in this trade sometimes discharged part of their lading in Zanguebar, and proceeded afterwards to Arabia ; and when we learn from the same work, that most of the settlers on that coast were Arabs, and several of the places subject to the different sheiks of Arabia, as they are at this day. These are the large vessels from India, which Agatharchides describes as early as the time of Philadelphus, found by the Greeks in the ports of Arabia ; and from which they obtained all the commodities of the East before they went to India themselves. This commerce we may carry back to the ages long antecedent to history, and conclude, that as the monsoon must be known to the inhabitants of both coasts from the time they were inhabited, so must the communication have been opened from the earliest period, in which mariners ventured to commit themselves to the ocean.

It is almost superfluous to add, that the Sefarch both of Africa and India has been converted into the Ophir of Solomon, as it has suited the hypothesis of different authors, to carry his fleets to the east or to the south ; and fortunately, both opinions may be maintained or combated, without danger of controverting the authority of scripture.

After all these various particulars, which are left to the discretion of the reader, there does appear something of importance in the circumstance of Sooppara continuing a place of note, from the age of Ptolemy and the Periplûs to the time of Cosmas and

Al Edrissi¹²⁸; and it seems not impossible to determine its situation, by observing that Ptolemy places it on the north of the first great river south of his Namadus, or Nerbudda: this river must be the Tapti, and the place north of the Tapti must be Swalley, or some place near it; in the front of which lies the road of Surat. How d'Anville could carry this down to Sifferdam¹²⁹, seventy miles south of Bombay, when he unites in supposing Kalliena and Bombay to be the same, is inconceivable; but as he places his Sefarch el Hinde there also, the resemblance of a name has made him disregard the arrangement of his author: but if the author has any meaning, Soopara must lie between Baroache and Bombay, and most probably in the vicinity of Surat. Surat itself is said to be a modern¹³⁰ city; but a mart in its neighbourhood must always have commanded a great access to the interior, as the Tapti extends upwards, from the sea, full four hundred miles, and communicates by its branches with a variety of districts which are rich and flourishing. It is this circumstance which has made Surat superior in commerce to Baroache, for these three last centuries, as being easier of approach; and whatever city supplied its place on the Tapti must have partaken of these advantages, and such apparently was the Soopara, or Oopara, of the ancients. It is very remarkable, that Rennell has an Oolpar a little to the north-east of Swalley, in his corrected Map of India; but as he does not mention it in his Memoir, I cannot discover whether it is ancient or modern—a city or a village. I build little upon similarity of names; but as many gentlemen, now in England,

¹²⁸ By the repeated mention of Subara with purpose. But I cannot always follow his Cambay in Al Edrissi, I had hoped to connect wanderings.
¹²⁹ Antiq. de l'Inde, p. 104.
¹³⁰ Which is proved by Capt. Hamilton, in his Account of the East Indies, vol. i. p. 144.

have been resident at Surat, if any thing should have occurred to their observation, they will be gratified by the introduction of this name to their recollection.

For Akabaroos I can find no representative: it may be fixed any where between Baroache and Surat; but as there is a small stream called Kim, by Orme, in the intermediate space, it is here that it should be looked for, were there any thing to direct our inquiries. But this place was apparently seldom frequented, and therefore it is not to be expected that much information should be left us by a merchant of Alexandria.

To return to Kalliena, the last name of the three mentioned. I join most readily in opinion with those who have preceded me in the inquiry; and consider the tablets discovered at Tana in Salfet, as a most valuable monument¹³¹ for connecting the government at Tagara with the district on the coast. It is foreign to this work to enter into the present state of Bombay, under the power of the English; but as the first factory of our countrymen was established at Surat, it is interesting to observe how the acquisition of Bombay has enabled them to extend their influence over Surat, Baroache, and Cambay; to occupy the commerce of Guzerat, and to possess the power of dominion in those marts, where the Romans enjoyed only the privileges of merchants.

In the age of the Periplus, Kalliena was little frequented: in the reign of a former sovereign, styled Saragan, it had been an established port of commerce; but Sandanes¹³², his successor, admitted

¹³¹ These tablets, containing a grant of land, have been mentioned before; and if the manner of writing Tagara be literal, the evidence is complete.

¹³² Al Edrissi preserves the name of Sandan

applied to a mart five stations, or 150 miles, below Subara. The situation is not amiss; but whether it has any allusion to the name of a rajah or sovereign, is wholly dubious.

none of the vessels that came from Egypt; and if any entered the harbour by accident, or stress of weather, he immediately put a guard on board, and compelled them to go to Barugáza. This circumstance, Lieut. Wilford observes, favours strongly of an improper conduct in the traders, or might arise from the jealousy of a native power. The Romans shewed their influence, by erecting a temple to Augustus at Muziris; and if we suppose an attempt of this kind made at Kalliena, it bears a resemblance to the encroachment of Europeans on the natives, as well as the intrusions of the Arabs and Mahomedans. If we could have connected these governors, or rajahs, of the coast, with Mambarus, the sovereign of Ariakè, or fixed the residence of Mambarus at Tágara, Plithana, or Hippocora, our picture would be complete; but on these points the *Periplus* is silent.

The ports or marts in succession¹³³ below Kalliena are

Semulla, Mandágora, Palaipatmai, Melizéigara, Tóparon of the *Buzantians*, *Turannos-boas*, the Islands *Sésekréienai*, the Island of the *Aigidii*, the Island of the *Káinetai* (in these places are the Pirates); and, after these, *Leukè*, or the White Island.

How this enumeration can have misled those who have preceded me in the inquiry, I cannot say; but to my apprehension we have the Pirate Coast, between Bombay and Goa, as manifestly delineated as we could require, and to that district our attention must be confined. On the primary point, indeed, of a coast infested by pirates, there is little difference of opinion; Ptolemy and Pliny are both in harmony with the *Periplus*, and modern writers are generally agreed;

¹³³ *Merzè di Kallienai*.

for pirates there have been in all ages, as they are here described, till the Severndroog of Angria was taken by the English in 1765. But when we have obtained the coast, why any one should travel out of it to find modern names correspondent to those of our author, is not easily reconciled to the canons of geography. All these names are given as what our seamen would call *country* ports, frequented¹³⁴ only by the natives; and whether we can find representatives for them or not, is of no great importance, if we can mark the limits of the provinces; to effect which, the modern divisions of the country may be of great assistance. Orme¹³⁵ has observed, that the Mahratta language is spoken from Bardez, or Goa, to the Tapti; and these very limits I would assign to the Ariakè of the Periplus. It is well known, that the division of provinces often survives the revolutions of empire: the habits of the natives, and the boundaries of nature, are not always subject to the vicissitudes of conquest; and as the Tapti was the probable limit between the government of Minnagar and that of Mambarus, on the north; so on the south, there is a natural boundary between Goa and Canara; where we are also to look for the termination of Ariakè, and the commencement of the Limúrikè of the Periplus.

For the situation of the few correspondent places, which I shall propose for the consideration of the reader, if the proofs should not amount to conviction, I shall at least do no violence to my author, or his text: I leave every thing free for discussion, as I find it; and even if my deductions should be erroneous, they will affect my own

¹³⁴ Μετὰ δὲ Καλλιέαν ἄλλα ἐμπόρια τοπικά. meaning, illustrated by καθ' ἑς τόπους, which
 Rendered by Hudson, Post Callienam alia immediately follows; and also by τοπικά πλοῖα.
 sunt emporia vernacula, quibus regionis incolæ P. 34.
 tantum utuntur; and I conclude it is the true ¹³⁵ Histon. Fragm. p. 57.

arrangement only, and mislead no one who is disposed to prosecute farther inquiries on the subject.

D'Anville has transferred the four first names of the catalogue from Ariakè to Barugáza, or Guzerat; knowingly and designedly¹³⁶ rejecting the order of the journal, and placing Semulla at Sumnaut Pagoda, Mandagora at Mangherour, Palaipatmai at Patan, and Byzantian at Bisantagan; now, reckoning only from Bombay, this is a displacement of an hundred and fifty miles; while Fra Paolino, who corrects d'Anville, and contemns all writers who have not been in India, carries Mandagora to Mangalor in Canara, and Palaipatmai to Baleapatna near Tellicheri, and Kalliena to Calanapuri¹³⁷ near Mangaloor. There is only seven hundred miles difference in the disposal of these names respectively; and a work which can admit of this latitude of interpretation, is either not worthy of a comment, or the different commentators must have preferred their own systems to all the evidence of their author.

To a common inquirer, the language of the *Periplûs* is perfectly consistent; and if a resemblance of names has misled men of superior information, it ought to set others more especially on their guard to follow the arrangement of the work which they have undertaken to explain, and not to erect systems of their own, which can be supported only by a perversion of the text.

The Pirate Coast was not formerly, and is not now, so totally inhospitable as to exclude all intercourse: the Portuguese had settle-

¹³⁶ Il ne faut point avoir égard à ce qu'on lit *ensuite* comme par forme de transition *parà* *Antiq. de l'Inde*, p. 101.

¹³⁷ P. 100. Upon the whole of this there is only one question to propose: Does not

Paolino allow Aigidii to be the Angedives? p. 101.; and if he does, did he ever ask himself the question, whether those ports are placed to the north, or the south, of Aigidii, in the *Periplûs*?

ments at Daman and Basseen, north of Bombay, as well as at Choul and Dabul, to the south; and it is a conjecture highly probable, that the Zizêrus of Pliny, and the Meli-Zeigara of the Periplus, were at ¹³⁸ Siddee-Zyghur ¹³⁹, about an hundred and forty miles south of Bombay. Pliny ¹⁴⁰ informs us, that the fleet which left Egypt early ¹⁴¹ in July reached Okêlis in thirty days; and then employed forty more, in crossing the ocean with the monsoon to the shores of India. The point where they left the coast of Arabia, was Syágros, or Fartaque; and the port they directed their course to, was Zizêrus. This had been the usual track, but was not a safe one, because of the pirates which infested the coast, and which made it necessary for the ships not to sail without a body of archers on board; for this reason they had been latterly obliged to change their direction to Muziris, though it was a more inconvenient place to receive their lading, and still not safe from the attempts of the pirates in the neighbourhood. In the first instance, the pirates were on the coast;

¹³⁸ Major Rennell has a Sedashgur below Goa; it is written Sudash-gur in the Oriental Navigator, p. 220. It is the fort of Carwar, and totally distinct from Siddee-Zyghur near Rajapore, described in the Oriental Navigator, p. 215. This fort of Rennell's is situated on a high point of land, and being remarkably white, becomes very conspicuous at sea. If the point of land had been said to be white instead of the fort, I should have concluded that I had found the Leukê, or White Island, of the Periplus.

¹³⁹ Zyghur probably takes the addition of Siddee from the Siddees, a mixed breed of Abyssinians, Natives, and Caffres, established in Vifiapoor, and masters of a fleet upon the coast, employed by Aurungzebe against Se-

vagee. Orme says, they were a bold, ferocious race, and excelled all the navigators of India. Hist. Fragments, p. 81. But Cape Siddee is likewise written Cape Zeyd, and Cape Z. Zyghur, however, may be a place of modern date; I can find no other proof of its antiquity than what is here given, and therefore propose the whole with great hesitation.—It is written Jaigur in Moore's Narrative, pp. 2. 9. and Jaighur, by the same author. Gur, or ghur, is a fort; what is Zy? or Jai? or Zeid?

¹⁴⁰ Lib. vi. c. 23.

¹⁴¹ Ante ortum canis. Pliny.—Salmasius says, the Romans reckoned the 19th of July as the rising of the Dog Star. 1188.

in the second, in the neighbourhood. This exactly agrees with the Periplus, which places Muziris, not in Ariakè, but Limurikè; and when we come to Muziris, we shall find a farther correspondence that appears conclusive.

I wish to build no more on this conjecture than it will bear; but as I have found the utter impossibility of assigning positions to the places named in the Periplus, and pretend to nothing more than prescribing limits to the province, even a conjecture of probability is worth something on a barren subject; and to another, which must follow it, I attach no greater importance.

Ptolemy has the Semulla, Balepatna, Byzantium, Mandágora, and Melizigêris¹⁴², of the Periplus, all upon the Pirate Coast; and on that coast, therefore, they undoubtedly existed, and not in Guzerat, where D'Anville has placed them, or in Malabar, whither they are carried by Paolino. That good Carmelite informs us, that Balepatna¹⁴³ signifies *a great city*; it is no great force, therefore, put upon this interpretation, to make it *the great city*, the capital, or the residence of a sovereign. And on this coast we have two Rajapoors, meaning, literally, the City of the Rajah. The most northerly of these, called Dunda Rajappor, does not disagree with the Balepatna of Ptolemy. The distortion of his maps, however, does not allow us to speak with precision on the subject; but if his Semulla be St. John's Point (which it is more like than any thing else), his Bale-

¹⁴² Melizigêris, in Ptolemy, is an island, the Meli-zeigara of the Periplus on the continent, and the Zizêris or Zizêrus of Pliny is a river and a port. The islands of Ptolemy are in such disorder on the coast of Cadrofia, and in the Red Sed, that there is nothing extra-

ordinary in their misplacement on the coast of India. His Ægidium is carried down to Ceylon.

¹⁴³ So Bella-puttun, great *puttun*, town or city. Moor's Narrative of Little's Detachment, p. 497.

patna lies somewhat short of two degrees lower down than his Semulla, and Dunda Rajapoor lies nearly at the same distance from St. John's. If I gain nothing by advancing these conjectures, I at least do no prejudice to my author; for his Palai-patmai is subsequent to Kalliena, and his arrangement is not disordered by the present supposition.

But where there is so little certainty attainable, it will be some pleasure to rest at last upon a point that presents us something like truth. This, I am persuaded, I have found in the islands that terminate Ariakè—the Concam of the moderns, the Kemkem of the Arabian geographers, and the Pirate Coast of all. I assume, then, the Sefekréienai of the Periplus for the Burnt Islands, or Vingorla Rocks of the Charts; and the two islands of the Aigidii and Kainítai, for Goa and Murmagon. Kainítai is said to lie close to the Chersoneuse¹⁴⁴; and one only Chersoneuse I find on the whole coast, which is Salcet, surrounded almost by the Sound of Goa, and the River Nerengal, and so conspicuous, that it may be considered as a certain proof of a position not to be resisted. It is true that the Angedives are not forty miles from Goa; and the resemblance of Aigidii to Angedives, has induced a general belief that they are the same; but the mention of two islands distinctly, and the vicinity of the Chersoneuse¹⁴⁵, preponderate against all similarity of names; and the boundary of the two provinces, which immediately ensues, added to the previous circumstances, makes the evidence complete.

¹⁴⁴ Κατὰ τὴν λεγόμενὴν Χερσόνησον.

¹⁴⁵ The appearance of a Chersoneuse is not so manifest in Rennell's Map, as in that of Orme; but the point off which the Angedives lie, cannot in any sense be deemed a Cher-

sonese, but a promontory only. Should I be mistaken, it is an error only of forty miles—moderate enough in comparison of seven hundred.

The Burnt¹⁴⁶ Islands, or Vingorla¹⁴⁷ Rocks, are a cluster not¹⁴⁸ very well known, till lately, in lat. $15^{\circ} 52' 30''$. They lie six or seven miles off shore, on a tract inhabited by a piratical tribe called Mulwaans, and are reckoned twenty¹⁴⁹ in number, seven of which are small islets, while many of the others are barely visible at high water; and there is a good channel between them and the main. The bare mention of such a group in the plural, with their relative situation in regard to the Islands of the Aigidii and the Kainîtai, seems to qualify them for the representatives of the Burnt Islands; while the Pirates, in their vicinity, adds to the resemblance. Their distance from Goa is little more than thirty miles, and no other Island intervenes.

It is only the two islands of the Aigidii and the Kainîtai that I assign to Goa; that is, Aigidii¹⁵⁰ to Goa, and Kainîtai to Mur-

¹⁴⁶ The text is Τυραννος Γόας. Εἶτα Σηο-
κρέεναι λεγόμεναι νῆσοι, καὶ ἡ τῶν Ἀγιδίων, καὶ ἡ
τῶν Καίνιταιν κατὰ τὴν λεγομένην Χερσόνησον, καὶ ὅς
τόπος ἐστὶν Πειραταί. Καὶ μετὰ πάντην Λευκὴ νῆσος.

It seems as manifest here that ἡ τῶν Ἀγιδίων, and ἡ τῶν Καίνιταιν, are joined, as that Λευκὴ is distinguished separately by μετὰ πάντην. D'Anville interprets Ἀγιδίων *hircorum*, and not without probability; for goats were placed on uninhabited islands by ancient as well as modern navigators; but I have not found the diminutive Ἀγιδίων from ἀῖξ. Dive, an island, is written Δῖη by Cosmas, and Ἀγὸς Δῖη, or Ἀγιδῖη, would be literally Goat Island.

¹⁴⁷ Sefekréienai, as I understand from Mr. Hamilton, signifies black rabbits. The caprice shewn by seamen in the names they assign to places, may excuse the introduction of the term. Whether the islets themselves lie crouching like these animals, or whether rabbits have been deposited here like goats on other uninhabited spots, for the use of navi-

gators, I have no means of ascertaining; but as trivial a circumstance as this may, some time or other, lead to the discovery of truth. The natives of the coast, no doubt, have a name for them: the title we give them is derived only from their vicinity to Vingorla, on the continent.

¹⁴⁸ Rennell's Memoir, p. 31.

¹⁴⁹ In the Oriental Navigator, p. 217. But there are seven principal rocks, or islets, in C. Huddart's Chart, by Mr. Dalrymple. There are also plans of Vingorla and Sinderdroog, the residence of the Mulwans or pirates of Melundy, among Mr. Dalrymple's drafts of places on the coast of Malabar.

¹⁵⁰ Aigidii, or Aigidia, comes so near Ange-dive, that it is assumed by almost every writer on the subject; and if it had preceded the Chersonese, instead of following it, would have been conclusive. But the point off which the Ange-dive lies, would, I think, be called a Chersonese by no ancient author.

magon; for Leukè, or the White Island, is separated from them by the text, and I have little hesitation in carrying it to Angedive. This disposition would account for all the islands upon this part of the coast, and place them in a relative situation perfectly consistent with the Journal. Kainîtai cannot be questioned, if its vicinity to the Chersonese be considered; but the assumption of Leukè for the Angedive I would leave to the determination of any Navigator acquainted with the coast, who could ascertain whether it has any appearance of whiteness¹⁵¹ to distinguish it from other Islands.

The Angedives signify five islands; and Ptolemy has a Heptanesia, or group of seven islands, intended to represent this cluster, but so misplaced, as not to admit of any conclusion from it. One of these only is inhabited and fortified¹⁵² by the Portuguese, who have a garrison here composed of malefactors exiled from Goa; the others, whether more or less than the numbers which give it different names, are only islets or rocks. The passage between the principal island and the main is clear; and this affords it a prominence, which may have entitled it to the notice of the Periplus.

In the Sound of Goa, there is one principal island on which the city itself stands, with others so small, that they are little noticed: all which had afforded a place of refuge for such Mahomedans as had been driven from the Hindoo ports or cities on the continent, before the arrival of the Portuguese. Here the Mahomedans of the peninsula collected, who intended to embark for Judda, and perform their pilgrimage to Mecca. This alone was sufficient to make it a

¹⁵¹ I have myself found no white island nearer than the Sacrifice Rock near Calicut, which is 270 miles from C. Ramas. That rock is white with the mute of birds, but it is too distant to enter into any arrangement

with the part of the coast where we now are. Capt. H. Cornwall's Remarks, p. 26. mention this whiteness, as I am informed.

¹⁵² Oriental Navigator, p. 221. It is a mile long, but not so much broad.

port of importance; and the more so, as we may conclude that the Hindoos had no influence and no share in the government; for the Mahomedans had established themselves here, as the fugitives on the coast of the Hadriatick had done on the islands which now compose the city of Venice; and they seem, like them, to have formed a community, which was distinguished by the name of Tricurii, or the Thirty Villages. The Portuguese, from their first arrival, had conceived a design of occupying this position: they first built a fort¹³³ on Angedive, and in 1510 Goa itself was taken by Albuquerque; it was recovered again by the Mahomedans the same year, and finally retaken by Albuquerque in 1511. Under his auspices, it became the head and centre of all the Portuguese settlements in India; and is still in their possession, after a period of three hundred years.

D'Anville is disposed to place Goa at Nelkunda; that is, at the southern, instead of the northern boundary of Limúrikè; but he is not satisfied with his own supposition, and abandons it. He fixes, likewise, Aigidii at the Angedives; to which Paolino assents, without reflecting that there must be two islands together, connected with a group preceding and a single island following. These circumstances cannot accord with the system they have adopted; but are perfectly consistent with the Periplús, and the disposition I have assumed. I have no predilection to this arrangement, because it is my own; but I have tried the Journal by the best charts I have of the coast, and can find no points, either to the north or to the south, which will correspond; and therefore conclude, that by this every thing is done for obtaining the truth that the text will admit.

¹³³ Almeyda, according to D'Anville (*Antiq. de l'Inde*, 110), laid the foundation of a fort.

But the division of the provinces remains still to be considered ; and the termination of Concan is fixed by our charts at Cape Ramas, about two-and-twenty miles south of Goa ; near which is Carwar, once an English factory in the territories of the Soonda Rajah ; and the jurisdiction of this prince is said by Capt. Hamilton to extend from Cape Ramas, about fifteen leagues along the coast to Meerzee, or Meerzaw. This tract, including the Angedive and the cape off which it lies, I should wish to comprehend within the limits of the ancient Ariakè, and I think the modern boundaries favour the conclusion ; for the kingdom of Canara does not commence but at the termination¹⁵⁴ of Soonda ; and though I cannot ascertain that the coast, north of Goa, called the Dekan, or south of it, called Soonda, are considered as parts of Concan ; yet it is very clear, that the limit of Soonda and Canara is at Meerzee. At Meerzee, therefore, I assume the boundary between Ariakè and Limúrikè, guided by the Leukè of the Periplus, as the last place mentioned in Ariakè, and by Naoora, as the first place mentioned in Limúrikè. This assumption, if correct, will reconcile the positions on the whole coast, from Goa to Cape Comorin ; and if erroneous, confines the error within the distance between Murmagon and the Angedive : an error, at the utmost, of forty¹⁵⁵ miles ; moderate in comparison of the disagreements between d'Anville and Paolino ; and causing no disorder in the arrangement of the provinces, but such as may be remedied by the most transient reference to the map.

The province of Ariakè was under the government of Mámbarus,

¹⁵⁴ See De la Rochette's Map of Hindostan, Fragments, p. 73. which agrees with C. Hamilton, and Hamilton remained some time at Carwar. See vol. i. 259. Orme likewise fixes it at Mirzeou. Hist.

¹⁵⁵ Rennell makes it fifty miles, De la Rochette thirty-five, and Orme the same number.

and

and Limúrikè, which we now enter upon, was subject to Kepróbotas, comprehending the modern kingdom of Canara, and terminating on the south with the kingdom of Pandíon, which answers to the Malabar of the present day. The ports of this province will be treated of in their regular order; but before we descend to particulars, let us survey these four divisions of the coast, as they stand in the Periplús, corresponding with the present distinctions of the provinces; let us add the possibility of assigning the respective limits in both instances, and then ask ourselves, whether this is not a more rational way of interpreting our author, than by searching for a resemblance of names, which has misled so great a geographer as d'Anville; and in which, if it were reasonable to indulge, many new similitudes might be discovered, that have not yet occurred to any one that has prosecuted the inquiry.

The province of Barugáza, answering to Guzerat, under the power of Minnagar, commencing at the Indus and terminating at the Tapti, is the first. The second is Ariakè, subject to Mámbarus; a sovereign whom we might compare to Sevagi, or a Mahratta power of the present day; bordering north on Guzerat, and south on Canara; of the same extent as the Pirate Coast, and distinguished at this day as fixing the same boundary to the Mahratta language, as to the province, ancient and modern. Limúrikè is the third, with its northern confine at Cape Ramas, and its southern previous to Nelkunda; corresponding with Canara, which commences at the same point¹³⁴, and has its southern limit at Decla. And lastly, the kingdom of Pandíon as a fourth division, equivalent to Malabar Proper, succeeded by Paralia and Cómarí, and terminating with the Pearl Fishery and Ceylon. Let us, I say, contemplate

¹³⁴ Orme, Hist. Frag. p. 73.

this general picture of the whole coast, from the Indus to the southern cape of the peninsula; a space comprehending fourteen hundred miles, through the whole of which the ancient divisions are found consistent with those of the present day; and we cannot, under all these circumstances, fail to acknowledge the information of our author, and the importance of the work he has left for our instruction.

After this comprehensive view, the contention which may arise about the appropriation of individual names to particular ports, towns, or stations, is a matter of very inferior consideration: my conjectures or assertions may be disputed as well as those of others, who have trod the same ground; but till the great outline which I have traced can be obliterated, the service rendered to the science must be acknowledged.

Many of the gentlemen now in India are possessed of minds illuminated by education, and stimulated with a desire of enlarging the bounds of science, or assisting the inquiries of literature: these, in their respective situations, must have acquired a local knowledge, which cannot be obtained by those who draw their information from written evidence alone. To such men as these I have made a constant appeal, and submit the deductions I have traced to their correction; particular errors there may be, but by the general division of the provinces, I leave a guide to all that may be disposed to further these inquiries, and a rule for rectifying every thing in which I may have been mistaken. Still the investigation should be made, not by those, like Fra Paolino, who drew every thing to Malabar, because he had resided thirteen years in the province, but by men of enlarged mind and general information, qualified, like Capt. Wilford, with classical learning, and a knowledge of the native language;

guage; enabled to direct their view to ages past as well as present; and possessed of comprehensive faculties, which can embrace the general state of India, as well as the particular province in which they happen to have been employed. From men of this stamp I shall experience every indulgence; and if they should acknowledge that light has been thrown upon one of the most obscure objects of inquiry left for our discussion by the ancients, I shall rest satisfied with the result of my labours.

IX. LIMÚRIKÈ.

How d'Anville could be persuaded that this province was the representative of Concan, is inexplicable; for Pliny, whom he chiefly follows, says expressly, that Muziris was not on the Pirate Coast, but in its neighbourhood only; and the Pirate Coast is as clearly defined by all our ancient authorities, as by the modern accounts. Cape Ramas, as its northern boundary, and Nelkunda, in the territory of Pandion, as its southern limit, mark the confines so precisely consistent with Canara, that we cannot be mistaken. These likewise are the limits of the language¹⁵⁵ at the present day, which is a distinct dialect from that of Malabar on the south, or the Mahratta language on the north; and this is a characteristic less fluctuating than any division of the country that conquest might produce.

The ancient kingdom of Canara embraced a large part of the peninsula, the capital of which was Bejapoor¹⁵⁶; but the modern

¹⁵⁵ La lingua Canara, che corre nel regno of the dialects have no v, and others no b; Canara dal monte d'Illy fino a Goa. Paolino, j and z are likewise perpetually interchanged or confounded.

¹⁵⁶ Commonly written Viziapoor. Several

district of that name was chiefly on the coast, with its capital above the Ghauts. It was an independent state or kingdom, till it was reduced by Hyder Ali in 1765; and it was at that time governed by a queen¹⁵⁷, who had driven out the rajah, a child of nine years old, in favour of her brother. Under pretence of assisting the deprived rajah, Hyder entered the country, laid siege to Bednoor and took it, and, in a very short time after, sent the queen with her brother, and the young rajah, into confinement in one of his hill forts near Bangaloor. Bednoor, the capital, is rendered famous by the defeat and death of the unfortunate General Matthews in 1783; and was considered by Tippoo Sultan as a fortress of sufficient strength to confide to it a very large portion of his treasures. The conquest of Canara gave Hyder and his son a communication with the coast, and opened the way for farther incursions to the south, which were prosecuted to the devastation of Calicut and Cochin, and directed against Travancoor, when they were fortunately checked by the assistance of the English. Tippoo Sultan had likewise the ambition to become a maritime power: he built a frigate, and fitted out a fleet of the country vessels of war, with which he undertook an expedition to the Maldives, and added to his titles, that of Lord of the Thousand¹⁵⁸ Islands. Had he succeeded in his designs, he would have extended his dominions from Mysore to Cape Comorin, and extinguished the last remains of Hindoo government in the peninsula, except the Mahrattas.

This short recapitulation is not foreign to our subject; for though we hear much in history of the mild and gentle spirit of the Hindoos,

¹⁵⁷ It was regularly governed by a queen.
C. Hamilton's Account of East Indies, vol. i.
p. 279.

¹⁵⁸ The natives style their sovereign, King
of 12,000 Islands. Harris, vol. i. 677.

they

they were as much enamoured of conquest as the Mahomedans; and in the age of the Periplûs, a king of Mádura, (the sovereign of ¹⁵⁹Pandi-Mándala, the Pandíon of the ancients,) had extended his power from the eastern to the western side of the peninsula, and was master of Malabar when the fleets from Egypt first visited the coast. The king ¹⁶⁰of Limúrikè, and the king of the country south of that province, that is Pandíon, are said both to have their residence inland by our author; and Pliny adds, that Pandíon lived *far* inland, at the city of Modúsa, which Ptolemy calls Modóora, the metropolis of Pandíon. The conjecture, perhaps, will not be admitted; but it seems as if the power of Pandíon had been superseded in Malabar, between the age of the Periplûs and Ptolemy; for Ptolemy reckons Ali next to Limúrikè on the south, and takes no notice of Pandíon till he is past Cape Comorin, and comes actually to Mádura, on the eastern side of the peninsula. Not that his east and west are on the two faces of the angle, for they are on a line; but he is relatively right, though essentially mistaken.

In the limits of Limúrikè, Ptolemy is nearly in correspondence with our author; for he commences with Tundis, omitting Naoora, and finishes with Bécare, which is close to Nelkunda, and Nelkunda in both is the first port of Malabar. Ptolemy, indeed, preserves many names more ¹⁶¹than the Periplûs; for he seems, upon all occasions, to insert every name he could collect, and the merchant

¹⁵⁹ The natives, I am informed, still distinguish themselves by the name of Pandi or Pandoo.

¹⁶⁰ The king of Canara might live above the Ghauts, as well as the queen that Hyder destroyed by the capture of Bednore.

¹⁶¹ Many more appear in Capt. Hamilton's account than we have occasion to notice at

present. C. Hamilton throughout considers Canara as the richest country of the coast; but plundered by the Mahrattas, Malabars, and Arabs. Such a work as the Oriental Navigator must notice every place; a merchant, only those where he traded. This is exactly the difference between Ptolemy and the Periplûs.

specifies

specifies those only that were frequented for the purposes of commerce. He has only three in this province—Naoora, Tundis, and Mooziris; all distinctly marked as subject to Kepróbotas, and in a different district from Nelkunda, which was in the kingdom of Pandion.

It is remarkable, that not one of these three places is accompanied with any local circumstances sufficient to determine their position; but Mooziris is five hundred stadia south of Tundis, and Nelkunda at the same distance south from Mooziris. If therefore we could fix Nelkunda, though in a different province¹⁶², we ought to measure back these twice five hundred stadia, as the only means of direction that we possess.

The following arrangement, therefore, I offer, with all the diffidence that the obscurity of the Journal demands: I have persuaded myself that it is correct; but I should not be surprized if my deductions should appear inconclusive to others. I have followed the only clew I could discover; and if any one, who has paid attention to the subject, should find better ground to stand on, I shall readily relinquish my own, and yield to superior information.

For the position of Nelkunda, I am obliged to Major Rennell, who is the first geographer, as far as I have learnt, who has fixed it at Nelisuram. That he is correct in this, I am persuaded, admits not of presumptive proof only, but demonstration:

For we may first observe, that Nelisuram is not only a mart itself, but gives name to a district. This district is not in Canara, but

¹⁶² Nelliceram is in a different province, for p. 289. who makes Decully, or Dekla, the the boundary wall is at Dekla. De la Rochette.—See also Capt. Hamilton, vol. i. limit.

Malabar:

Malabar: the frontier of Malabar, the boundary wall ¹⁶³ which runs from the sea to the foot of the Ghauts, is at Dekly, or Dekully, immediately north of Nelifuram. This wall is still visible; and this in a peculiar manner makes it correspond with Nelkunda, which was the first port in the kingdom of Pandion.

2. A second proof may be derived from the name itself, which Orme writes Nellea-seram. Nella, according to Paolino ¹⁶⁴, signifies *rice*, and Ceram a *country*; and if Nella-ceram be the country ¹⁶⁵ of Nella, Nel-kunda must be the fort of Nella, resembling Gol-conda, Inna-conda, or ¹⁶⁶ Conda-poor, on this identical coast of Canara.

3. But the last and best testimony is that of Major Rennell himself ¹⁶⁷, who mentions "a large river, named Cangerecora, whose course is from the N. E. and which falls in about four miles to the north of Mount Dilla; previous to which its course is parallel to the sea-coast for about eleven miles ¹⁶⁸, being separated only by a spit of land. The forts of Nelifuram, Ramdilly, and Matte-loy, are situated on this river, which is joined by several others that descend from the Ghaut mountains, which in this part approach within twenty-two miles of the coast. I cannot help con-

¹⁶³ Orme. D'Anville, *Antiq. de l'Inde*, p. 112.—"The coast of Canara extends to Declah, eight or nine leagues north of Dilly." P. 220. 223. *Oriental Navigator*.

¹⁶⁴ P. 170.

¹⁶⁵ Batecola, between Onoor and Barceloor, has the same meaning. Bate or Pate rice—Colou country. Vossius ad Mel. lib. iii. 7.

¹⁶⁶ I have been treated with severity by the Orientalists for encroaching on their province; but in India, every name of a place is significant; and perhaps in every other country, if we could trace the language which first assigned them their respective titles. In this

instance, however, the etymology is not mine, but deduced from an Oriental Grammarian, and I am only accountable for the deduction. I ought to add, that, according to his mode of interpretation, Coonda-poor is identically Castleton.

¹⁶⁷ *Memoir*, p. 28.

¹⁶⁸ Capt. Hamilton calls it a fine, deep river, which keeps its course along shore eight leagues, at a bow-shot distance. It disembogues itself by the foot of Mount Delly, over rocks and sands, in a channel half a league broad. Vol. i. p. 290.

"siding

“sidering this Nelisuram, which is situated twelve miles up the
“river, as the place meant by Nelcynda or Melcynda, by Pliny, and
“Ptolemy—a place visited by the Egyptian and Roman ships.”

Let us then observe, that the Nelkunda of the Periplus lies actually the same twelve miles up the river; and after this ask, whether all these circumstances can be accidental? for if the correspondence is evident, it is but reasonable to assume this proof as a demonstration.

It is with the most anxious solicitude that I have concentrated all these peculiarities to a point; because I shall want all the authority of so able a geographer, to support the conclusion I shall draw from his premises; and though he supplies me with a basis, I am not certain that he will be pleased with the superstructure I shall raise on his foundation; for, grant that Nelkunda is Neli-ceram (which from every kind of evidence I am persuaded that it is), and it will immediately follow, that Onoor¹⁶⁹, Barceloor, and Mangaloor, are the

NAOORA, TUNDIS, AND MOOZIRIS, OF THE PERIPLUS.

These are the only places mentioned in Limúrikè; they are the principal places of Canara to this day. Naoora is the first port of Limúrikè, as Onoor is of Canara; and Mooziris¹⁷⁰ so precisely the last,

¹⁶⁹ The English generally write and pronounce Onore, Mangalore, &c.; but Paulino says, *ur* signifies *borgo*, a town, and the Italian *ur* is the English *oor*.

¹⁷⁰ Cosmas informs us, that Mangaruth [Mangaloor] was, in the sixth century, one of the principal ports for the exportation of pepper. The mention of this article is an acquisition of evidence; but the ascertaining the

antiquity of the name, as far back as the sixth century, is still more in our favour. See Cosmas in Thevenot, p. 3. & Nova Collectio Patrum, in fine. Mangaloor is pronounced Mungloor by the natives, according to Capt. Moor, Narrative, p. 471. A and u are perpetually interchanged in Persian and Arabic. Paulino informs us, that Mangul-ur signifies *the Town of Felicity*, and Mangula-puri, as it

last, that we have been obliged to encroach upon the succeeding province before we could discover it. But the discovery will be now complete; for the *Periplus* places Mooziris fifty miles north of Nelkunda, Tundis fifty miles north of Mooziris, and, if we assume a third fifty north to Naoora, we have the whole three ports as precisely as we can open the compasses. I request the reader to refer this inquiry to the maps of Rennell, de la Rochette, d'Anville, or any other, rather than my own, to remove all suspicion of accommodation, and to assure himself of the certainty, not upon my assertion, but his own conviction. It is true that I am directed to Onoor, in some degree, by its similarity in sound to Naoora, but much more strongly by considering that Naoora is the first port in Limurikè, as Capt. Hamilton writes that "Onoar" is the northernmost port of Canara." And if these three ports are established by a reference to Nelkunda, some credit is due to a discussion which ascertains the position of MOOZIRIS¹⁷²; a point on which all are at a loss, and no two geographers¹⁷³ fully agreed.

There is a river at each of these ports, and in them the whole trade of the country has in all ages been carried on. The former wealth of the province is still evident, from the remains of tanks,

is sometimes called, *the City of Felicity*: Tippoo changed it to Jumulabad, *the Abode of Elegance*; and if future writers were to adopt the last change, Mangaloor might be hereafter as difficult to discover in Jumulabad, as it has hitherto been in Mooziris.

¹⁷¹ Vol. i. p. 275.

¹⁷² The relative importance of Mangaloor, in modern times, qualifies it for Mooziris above any other place in Canara. "Mangalore is the greatest mart for trade in all the Canara

dominions: it has the conveniency of a river, produced by three that come into it by different ways, from the south, the east, and the north. . . those three rivers join about a mile from the sea, and at Mangalore disembogue at one mouth." Capt. Hamilton, vol. i. p. 282.

¹⁷³ Mooziris is fixed at Mirzeou by Rennell, at Vizindroog by d'Anville, at Calicut by Hardouin and Mercator, and left undetermined by Robertson and Paolino.

pagodas, and public buildings, still existing. Of Naoora¹⁷⁴, indeed, no particulars are mentioned except its name; but Tundis¹⁷⁵ is said to be a village in the kingdom of Kepróbotas; Mooziris was under the same sovereign; and here, it is added, that there was a great resort of the native vessels from Ariakè or Concan, as well as of the Greek fleets from Egypt. Another particular recorded is [that the coast was so near a right line] that whether you measured the distance between Tundis and Mooziris from river to river, or from the passage by sea, the distance was equal. The same circumstance is repeated in regard to the distance from Mooziris to Nelkunda: it is five hundred stadia, says our author, or fifty miles, whether you measure by land or sea, or by the space between the two rivers.

Pliny¹⁷⁶ does not mention a river at Mooziris, but observes, that it was no desirable place of trade, not only on account of the pirates in the neighbourhood, but because the ships rode at a distance from the shore in the open sea, and boats were employed for the conveyance of their lading, both on the delivery and the reception. The merchants had therefore tried a more convenient port, called Necanydon, where they obtained pepper from a district called Cót-

¹⁷⁴ The text stands thus:

Εἶτα Νάορα καὶ Τύνδης τὰ πρῶτα ἐμπόρια τῆς
Λιμυρικῆς, καὶ μετὰ ταύτας Μῆζις βασιλείας
δ' εἶναι ἢ μὲν Τύνδης Κηπροβότα ἢ δὲ Μῆζις
βασιλείας μὲν τῆς αὐτῆς κεῖται δὲ παρὰ ποτα-
μὸν, ἀπέχουσα ἀπὸ μὲν Τύνδεως, διὰ τῶ ποταμῷ, καὶ
διὰ θαλάσσης, ἑκατὶς πεντακοσίως, ἀπὸ δὲ τῶ [πο-
ταμῷ] κατ' αὐτὴν ἑκοστί.

Where I insert ποταμῷ, Salmasius reads ἐμ-
πόριον; and he has placed Tundis at the mouth
of the river of Mooziris; but where can we
find a river navigable for fifty miles on this
coast? which must be the case if Tundis is

the road, and Mooziris the mart, fifty miles
up the stream. Plin. Exer. p. 1185. Moo-
ziris may easily lie two miles from the river.
This measurement by the rivers induces Pao-
lino to carry these three ports to the inlets
between Calicut and Cochin. This suppo-
sition has some weight.

¹⁷⁵ D'Anville fixes Tundis at Dunda-Raja-
poor in Concan.

¹⁷⁶ The text of Pliny is very corrupt. The
expression is, gentis Necanydon, the country
of the Necanides; but the mention of Becare
with it proves it to be Nelkunda.

tona. This is the pepper of Cottonára mentioned in the Periplûs, and assigned by every writer to the province of Canara. There is, upon the whole, no essential difference in the two accounts, except the mention of pirates by Pliny, not noticed in the Journal; but unless Hydras could be discovered, we cannot ascertain their position: it is supposed to be the Nitria of Ptolemy, the last place upon his Pirate Coast; and though that is not *near* Mangaloor, doubtless the pirates roved on the coast of Canara in former ages, as they do now, and pirates there have been at d'Illi and the Angedive, as well as in Concan.

Moozírís is written Modírís, Moodírís, Moondírís, Zmirís, and Zymírís, by different authors, which might lead some inquirer, on the spot, to farther discovery. Both the Periplûs and Pliny certainly consider it as an inferior port to Nelkunda; for no account of the imports or exports is given here, but at Nelkunda a copious catalogue. That Moozírís continued a place of resort in later times, we may conclude from the Peutingerian Tables, which place there a temple of Augustus, that is, of the emperor of Rome; for at the date of the tables, in the time of Theodosius, every emperor was Augustus; and that the Greeks or Romans should have a temple here, is no more extraordinary than that the Christians should have churches in Travancoor, or that the Arabs should have established their superstition in Ceylon, which Pliny assures us was true.

Dodwell has built some arguments on this circumstance, and on the names of the kings, which are the same in Ptolemy, Pliny, and the Periplûs, in order to bring down the date of this work to the time of Commodus and Verus. But Paolino affords a solution of this difficulty, which is perfectly satisfactory if his etymology be

true; for, he observes that Kepróbotas is written Celébothras and Ceróbothrus; and he informs us that Ceram signifies a *country*, *region*, or *province*, and botti, a *governor*; so that Cerambotti is as manifestly the *head* or *sovereign* of a *province*, as Ceram-perumal is *king of the country*, compounded of Ceram, a *country*, perum¹⁷⁷ *great*, and aal *personage*, the *great personage* or *sovereign* of the kingdom. And as Ceramperumal was the founder of the kingdom of Malabar in the year 907¹⁷⁸ of our era, there is much probability in this interpretation. If this etymology be admitted, it accounts for the name of Ceróbothrus in Limúrikè, and that of Pandíon in Malabar, not only in the different ages of Pliny, Ptolemy, and our author, but for as long a period as these divisions of the country continued undisturbed; for Mádura is still known in India as having the ancient title of Pandi Mándala, *the kingdom of Pandi*, or the Pandoôs; and Pandavais the founder of the sovereignty, according to the Bramins. Pliny¹⁷⁹ therefore was mistaken, in assuming a general title for a proper name, as well as Ptolemy, and the author of the Periplus.

X. KINGDOM OF PANDÍON, OR MALABAR.

THE native appellation of Malabar, we are informed by Paolino, is Kerula Ragiam, the Kingdom of Kerula, or Malayálam, the *Mountain Country*, derived from the Ghauts which bound it inland, and are visible from a great distance at sea. He adds, that Malan-

¹⁷⁷ Governor Duncan joins in this interpretation of Perumal. Af. Ref. vol. v. It is a curious and valuable paper.

¹⁷⁸ There is another date 805. D'Anville, 114.

¹⁷⁹ Regnabat ibi, cum hæc proderem, Celebothras. Plin. vi. 23.

gara is an Indian term corrupted into Malabar, and ought not to be deduced from the Arabic mala, a *mountain*, and bahr, a *coast*. It is not necessary to assent to this; because, when the Europeans first visited India, after the discovery of Gama, they derived their information from the Arabs, and consequently adopted their terms. At that time Calicut was the grand mart of the Oriental world; for here the trade from China and Malacca met the Arabs and Persians, who brought the produce of their own countries, as well as several articles which they procured from Europe; and though some Arabian vessels penetrated to Malacca, or even China, and some Chinese merchants, as it is said, extended¹⁸⁰ their voyage to Arabia, or to Keish and Shiraff, in the Gulph of Persia, the general point of intercourse was Calicut. When the Portuguese reached the eastern coast of Africa, they were directed neither to Surat or Baroache, but to this city; and here they found the Arabs settled in the country so powerful and numerous, as to obstruct their commerce, and traverse all the plans they had conceived. According to Barthema¹⁸¹, there were not less than fifteen thousand of them settled in this place only, besides numerous bodies of them on the coast, in Ceylon, and in Coromandel.

The influence they had in the country may be calculated, not only from this instance, but from the revenue their commercial transactions produced; from their readiness to engage in all the services of war, policy, and government; from the spirit of adventure which appears in all their conduct; and above all, from the

¹⁸⁰ This opinion is founded on the report of Renaudot's Arabs, and will be considered hereafter.

¹⁸¹ The evidence for their power and num-

ber is also very clear from M. Polo, and their employments in trade and war. See Lib. iii. Ceylon, and p. 54.

desire of extending their religion, as well as promoting their individual interest. The character under which Paolino describes them at the present hour, would probably have suited them in every age:—"They"¹⁸² are a robust race, wearing their beards long and "their hair neglected; their complexion is dark, and their clothing consists of nothing more than a shirt and trousers of cotton. "They are active and laborious; seldom appearing in the streets "but in a body, and always armed. They sleep in tents or booths, "dress their victuals in the open air, and work, during the night, "by the light of the moon. They assist one another in lading and "unlading their ships, and they drink plentifully of toddy and "arrack. Upon receiving the least affront, the revenge is com- "mon to all." Their trade is still considerable¹⁸³ both at Cochin and Calicut; for not less than an hundred ships are employed in this trade, from Maskat, Moka, and Judda; and the commodities they purchase are of a better quality¹⁸⁴ than those obtained by the Europeans; because the Europeans, either by their power, or by contract, have bound the native government to furnish them with pepper and other articles at a regulated price.

The Chinese no longer frequented the port of Calicut when the Portuguese arrived in India: they had been ill-treated by the Zamorin, probably at the instigation of the Arabs, and for the same reason which excited their jealousy of the Europeans; and after a fruitless attempt to revenge themselves, the Chinese ships came no longer to Malabar¹⁸⁵, but to Maliapatam only in Narfinga, on the coast of Coromandel.

¹⁸² Paolino, p. 84.

¹⁸³ Paolino says, they make two voyages in a year; but I do not understand how this can

be, if they sail with the monsoon.

¹⁸⁴ Cæsar Frederick in Hackluit, p. 223.

¹⁸⁵ Barthema in Grynæus & Ramusio.

Now

Now this trade with the countries farther to the east, and the interest which the Arabs had in the communication, is in full correspondence with the account of Pliny¹⁸⁶ in the first century, with Ptolemy in the second, with that of Cosmas in the sixth, with the Journal of the Arabs (published by Renaudot) in the ninth, with the experience of Marco Polo in the thirteenth, and with Nicola di Conti, sixty years previous to the arrival of the Portuguese in India.

It appears from Pliny, that the Arabs were so numerous in Ceylon, as to have occupied the country below the Ghauts, like the modern Europeans; for their superstition had prevailed over that of the natives on the coast. He adds, that the Seres¹⁸⁷ were known in that island by means of the intercourse which commerce produced; and that the father of the rajah who came upon an embassy to Claudius, had been in their country. (Something like this will appear hereafter in the *Periplus*.) And that a regular communication was open between India and Malacca, there can be no doubt; because Ptolemy has fixed a port on the coast of Coromandel, from which the fleets sailed which went to Chrusè, or the Golden Chersonese. Here we may fix the limit of ancient geography; and whether we chuse to carry this trade to China, as some have supposed from the name of *Sinæ Thinaë*, and Seres, or whether we fix it at the peninsula of Malacca, it is in effect the same; for in that peninsula there have been, in different ages, the kingdoms of Tonquin, Cochin China, Pegu, Siam, and Ava; all partaking of Chinese manners, habits, and customs, and all furnishing, in some degree, the commodities we now pro-

¹⁸⁶ Lib. vi. cap. 22.

¹⁸⁷ Pliny says, moreover, *Seras ab ipsis montes Emodos Seras quoque ab ipsis aspici,* notos etiam commercio; meaning that the aspici; as if the coast of the Seres were in Ceylonefe went by land into Tartary, and so fight. But Salmasius proposes reading, *ultra* to China.

cure in China. How the report of these countries, indeterminate as it was, reached Greece so early as the age of Eratosthenes¹⁸⁸, is a great problem, not easy to resolve; but that in later times some merchants had been induced, by interest or curiosity, either to attempt the voyage, or to sail on board the native ships, is highly probable. That all knowledge, however, beyond Ceylon was doubtful and obscure, is undeniable; for here the marvellous commences, which is constantly the attendant upon ignorance; and in whatever author it is found, we may be assured he has no certain information on which he can depend.

Within the limits of Ceylon all the general concerns of commerce were certainly confined, in the age when the *Periplus* was written; and whatever might be the extended attempts of the Arabs, very few of the vessels from Egypt ever reached that island. Nelkunda was the Calicut of their day; and standing in the same country, and affording the same commodities, they procured here for the market of Alexandria the drugs, spices, and other precious commodities, which have ever been in request throughout Europe.

At Nelkunda let us now pause, written Melênda¹⁸⁹ by Ptolemy, Melkunda by his commentators, Necanidon by Pliny, Neakyndon by Hardouin, and Nincilda in the Peutingerian¹⁹⁰ Tables. It is said to

¹⁸⁸ If Eratosthenes derived all his knowledge from Timosthenes, as Marcian informs us; Timosthenes, who was sent down the coast of Africa by Philadelphus, must have acquired his information either there or from Arabia. But the Thinxæ are mentioned in Aristotle's *Treatise de Mundo*; and if that work be really Aristotle's, it proves that the Golden Chersonese had been heard of in the time of Alexander.

¹⁸⁹ D'Anville has found an Ophir in Arabia,

connected with a Sefareh el Zinge on the coast of Africa, and a Sefareh el Hinde in India. Would not the same speculation discover a Melinda on the coast of Africa, and a Melênda in Malabar?

¹⁹⁰ It is a very singular circumstance, that the Peutingerian Tables should have the same names as the *Periplus* on this coast, but reverse them; for as they run Tundis, Muziris, Nelkunda, in the Journal, they stand Nelkunda, Tyndis, and Muziris, in the Tables, with

to be the same as Becarè, by Pliny, and near Barákè, or Ela-Barákè, by the Periplûs. That is, Barákè is a village at the mouth of the river, which, joined with Ela, cannot fail to remind us of Eli, as it is written by Marco Polo¹⁹¹, the d'Illi, or d'Illa, of our modern charts. D'Illi is one of the most conspicuous points on the coast, and, as far as I can discover by the maps, the only remarkable mountain close to the shore. This I had supposed to be called Mount Purrrhus in the Journal; but if Purrrhus is to be interpreted as a Greek term, it signifies the *Ruddy Mountain*¹⁹²; and I have since learnt, that d'Illi has not this appearance, but that there are heights both to the north and south, which still bear the title of Red Cliffs, and which will be noticed in their proper place. The mouth of the Nelisuram river, or Cangerecora, at Ramdilli, is placed by Rennell almost close to the mountain; and ¹⁹³Ram-d'Illi¹⁹⁴ again contains the name of Ela, and is manifestly the Ela-Barákè of the Journal.

At Barákè the vessels rode till their lading was brought down from Nelkunda. It seems by the text as if the navigation of the river were safe, and that the ships went up to the city to deliver their cargo, and then came down to Barákè to receive their lading

with Blinka, a corrupt reading for the Elanki of Ptolemy, and Colchi Sindorum, for the Kolkhi of both. There is mention likewise of a temple of Augustus, or the Roman emperor, and a lake at Muziris. These circumstances, however erroneously stated, still tend to prove the continuance of this commerce, from the time of Claudius to Theodosius—a space of above three hundred years; and a probability that the Roman merchants had settled a factory at Muziris, as they would scarcely

have built a temple there, without some sort of residence in the country.

¹⁹¹ It is written Eli, and d'Eli, in Bergeron's translation; Deli, in Ramusio.

¹⁹² Τὸ Πυρρὸν ὄρος.

¹⁹³ Ram is a common adjunct, signifying ; as, Ram-Rajah.

¹⁹⁴ D'Illi is the orthography of Paolino; Dilla, of Rennell; Deli, Dehli, and Delee, are found in different charts; and Eli, in Marco Polo.

in return; if so, it is a presumption that they returned deeper laden than they arrived, as most vessels from Europe do at the present day. But there is some confusion in the text, and one corruption¹⁹⁵ at least: in modern¹⁹⁶ accounts, the river itself is described as large and deep, but obstructed at its mouth by shoals and sand-banks. The approach to this coast likewise is discoverable, as well as that of Guzerat, by the appearance of snakes upon the surface of the sea, which are black, shorter than those before mentioned, more like serpents¹⁹⁷ about the head, and with eyes of the colour of blood. This is a circumstance confirmed by Paolino, who lived thirteen years in the country, and who accounts for it by supposing that they are washed down by the rivers in the time of the rainy season.

The port of Barákè, or Nelkunda, is much frequented on account of the pepper and betel which may be procured there in great quantities¹⁹⁸. The principal Imports are,

Χρήματα πλεῖστα,	-	-	Great quantities of specie.
Χρυσόλιθα,	-	-	Topazes.
Ἰματισμὸς ἀπλῆς ἢ πολὺς,	-	-	A small assortment of plain Cloth.
Πολύμιστα,	-	-	Rich cloths, of different colours?
Στίμμη,	-	-	Stibium for colouring the eyes.
Κοράλλιον,	-	-	Coral.
Ἵαλος ¹⁹⁹ ἀργή,	-	-	White glass.
Χαλκός,	-	-	Brass.

¹⁹⁵ Διὰ δὲ τὸν ποταμὸν αἰματὰ καὶ διάπλῆς ἔχει διαφρῆς. It does not appear what ought to be substituted for αἰματὰ.

¹⁹⁶ In Capt. Hamilton; and it is remarkable that Marco Polo says, the ships of Mangi (China) that came here, loaded in eight days, or earlier, if they could, on account of the danger of the anchorage. Lib. iii. c. 26.

¹⁹⁷ Ὄφεις . . . δρακονταῖς τὴν κεφαλὴν. What is the distinction between ὄφεις and δράκοντες? It seems here, crested.

¹⁹⁸ Διὰ τὸν ὄγκον καὶ τὸ πλῆθος τῶν τιμῶν καὶ τῶν μαλακῶν.

¹⁹⁹ Rendered by Hudson; Vitreum rude; but ἀργή, white, is added to it, to distinguish it from vitrum in general, which was blue.

Κασσίτερος,	-	-	Tin.
Μόλυβδος,	-	-	Lead.
Οἶνος ὃ πολὺς,	-	-	A small quantity of wine ²⁰⁰ ; but as profitable as at Barugáza,
Σανδαράκη,	-	-	Cinnabar.
Αρσενικόν,	-	-	Orpiment.
Σῖτος ὅσος ἀρκέσει τοῖς περὶ τὸ ναυκλήριον,	-	-	Corn, only for the use of the ship's company. The merchants do not sell it.

The Exports are,

Πέπερι ²⁰¹ μονογενῶς ἐν ἐνὶ τόπῳ τέτῳ γεννώμενον ²⁰² πολὺ καὶ λεγόμενον Κοττοναρικόν,	-	PEPPER, in great quantity, which grows only in this one place, and which is called the Pepper of Cottonara.
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Μαργαρίτης ἱκανὸς καὶ διάφορος, Pearls, in quantity and quality
superior to others.

Ἐλέφας, - - - - - Ivory.

Ὀθόνια Σηρικὰ, - - - - - Fine silks.

Νάρδος ²⁰³ ἢ γαπανική, - - - - - Gapanick spikenard: it is usually
read Gangetick.

Μαλαίβαθρον, - - - - - Betel.

ἐκ τῶν ἑσῶ τόπων,

from the countries farther
to the east.

²⁰⁰ Σῖσα δὲ ποσῶν ὅσα ἐν Βαρυγάζοις. Hudson
has omitted this. The meaning here given is
conjectural.

²⁰¹ Pepper, from the wealth it brings into
the country, in Sanscrit is called, *the Splendour*
of Cities. Paolino, p. 356.

²⁰² I think γενώμενον implies, the native
growth of the country: it may signify only,

procurable there.

²⁰³ Νάρδος ἢ γαπανική. There can be little
doubt of the corruption here; because, at
p. 36. the author himself writes Γαγγητικὸν
Νάρδος, the spikenard procured at the Ganges;
and there it is still procurable from Thibet,
according to Sir Wm. Jones and Dr. Rox-
burgh. Asiatick Researches.

Λιθία διαφανής παντόια,	-	All sorts of transparent or precious stones.
Ἀδάμας,	-	Diamonds.
Ῥάκινθος,	-	Jacinths. Amethysts.
Χελώνη ²⁰⁴ ἢ τε Χρυσονητιωτικὴ καὶ ἡ περὶ τὰς νήσους θηρευομένη		Tortoise-shell, from the Golden Islands (or Maldives?); and another sort, which is taken in the
τὰς προκειμένας αὐτῆς τῆς		islands which lie off the coast of
Λιμυρικῆς,	-	Limúrikè (the Lackdives).

The particulars of these cargoes suggest some reflections of curiosity; for the bullion or specie employed in the purchase of the native commodities, has formed a subject of complaint in all ages, as if Europe were exhausted of the precious metals, and all the riches of the world absorbed by Oriental commerce: the fact is true, that this trade cannot be carried on without bullion; for all the revenues of the country, now in the hands of the East India Company, are not sufficient to cover the investments annually made. Still Europe²⁰⁵ is not exhausted, but increasing daily in wealth and power, compared with the other quarters of the world, and never can be, till the industry promoted by this commerce, and by commerce in general, shall be annihilated.

Tin is another of the articles enumerated; and if we find this produce of Britain conveyed to Malabar in the earliest period that history can reach, we find the spices of Malabar in Britain, in an age when the course of the communication with India was probably as little known as the existence of America. The venerable

²⁰⁴ Salmasius supposes Χρυσονητιωτικὴν to refer to Khrusè, the Golden Island, or Chersonese, in Ava.

²⁰⁵ See Harris's Discourses on the East India Trade, vol. i.

Bede²⁰⁶, who died in the year 735, was possessed of pepper, cinnamon, and frankincense. Did no one ever ask the question, how, in that age, these luxuries had been conveyed to Britain, or were treasured in a cell at Weirmouth?

But the particular most worthy of remark, is the mention of fine filks [*ὀθόνια Σερικά*]; for othonion is any web of a fine fabric, and as applied to cotton signifies muslin; but its usage in this passage, joined with *Sericon*, plainly indicates the manufacture of the Seres, which is silk. It is mentioned only at this port, and particularly distinguished as not being a native commodity, but brought hither from the countries farther²⁰⁷ to the east. This is a sufficient proof, that Nelkunda was in that age, what Calicut was in later times—the central mart between the countries east and west of Cape Comorin; and we want no other evidence to prove, that the intercourse between India and the countries beyond the Bay of Bengal, was open in that age, and probably many ages prior, as well as in the time of Ptolemy. That the fleets which went to Chrusè, or the Golden Chersonese, would find the filks of China in that market, is readily admitted; but that the Seres were still farther east, is manifest, from the map of Ptolemy, as well as from Pliny, who calls them the most eastern nation of the world. Now that the ancients always meant China Proper by the term Seres, however obscure their notions of it were, seems to admit of proof. Silk came into the Roman world usually by the route of Tartary, the Caspian, and the Euxine sea; and when Justinian procured the silk-worm, he procured it by this northern channel. This communication however,

²⁰⁶ Bedæ Opera, p. 793. Appendix, and began to reign in 872.
²⁰⁷ *Φέρται ἐκ τῶν ἑσθίων ἐς αὐτὴν.*
 p. 808. Alfred, who is said to have sent Sighelm, bishop of Shirbourne, to Malabar,

on the north, could not be opened with the nations of the Golden Chersonese, with Ava, Pegu, or Siam, but is expressly marked as formed immediately with the Seres themselves. The point fixed for the meeting of the traders from the west with those of the Seres, was in Tartary, and farther to the ²⁰⁸ north-east than the sources of the Ganges; and this point, fix it where we please, is perfectly in correspondence with the Kiachta of our own days, where the commodities of the Chinese and Russian empires are exchanged. The jealousy of the Seres in regard to strangers, remarked by Pliny ²⁰⁹, is perfectly characteristic of the Chinese in all ages; and whether the communication took place near the Chinese frontier, or in any place nearer to the west, it equally proves that there were Seres on the north, as well as the south; and that there was one communication opened by the intervention of Tartary, and another by sea, through the means of the nations in the Golden Chersonese. We shall find some intimation of this commerce on the north (wild and fabulous as the account is) at the conclusion of the Periplus, and in the catalogue of articles now under consideration, the communication by sea is equally manifest. Whether this intercourse by sea was direct, or only by the intervention of the nations of the Chersonese, is another question; but on this subject more will be said in its proper place. It seems natural, however, to suppose, that there always was a Malacca, or some port that represented it, where the trade from China met the merchants from India; as the commerce of India met the traders of Arabia and Persia at Calicut, or some port on the coast of Malabar. In this state of things,

²⁰⁸ Ptolemy, VIIth Table of Asia.

²⁰⁹ Pliny mentions this twice; lib. vi. c. 17. and cap. 2, 3. In the first, it is the commu-

nication by land; in the second, it is from the information of a native of Ceylon.

the Portuguese found the commerce of the Oriental world; and in a state very similar, it seems to have existed in the age of the Periplus. This affords us a rational account of the introduction of silk²¹⁰ into Europe, both by land and sea; and thus by tracing the commodities appropriate to particular nations, or climates, we obtain a clue to guide us through the intricacies of the obscurest ages.

One circumstance respecting the Malá bathrum, which I have supposed to be the Betel, remains still to be considered: it is said to be brought here from the countries farther²¹¹ east, and not to be a native commodity. Pepper, and pearls, and ivory, and spikenard²¹², are likewise said to²¹³ be brought here, as well as silk; all which contribute to prove this port to be the representative of Calicut in that day, and Pandion to have enjoyed all the revenues arising from the commerce of India and Europe. Could it then be proved that the hundred and twenty ships which Strabo saw²¹⁴ at Berenikè, actually reached India by a coasting voyage before the monsoon was discovered, we can see a reciprocity of interests, which might very easily induce Pandion to send an embassy to Augustus. Another Indian embassy is said, by Strabo, to have been sent to the same emperor by Porus; and this Porus is supposed, in Indian history, to be the sovereign of Agimere—the Rana, or principal of the Raj-

²¹⁰ Silk was not a native commodity or manufacture of India in the 16th century; it still came from China. Cæf. Frederick, Purchas, vol. iii. p. 1708.

²¹¹ *Ἐκ τῆς ἑσπερίας γῆς*. Again, I have no doubt but that the sense here given is the right one.

²¹² The Areka nut is mentioned as an export at Cananoor, the next port by Cæf.

Frederick, p. 1707. Purchas, vol. iii.—a fruit the bigness of a nutmeg, which they eat with the leaf, called Betle. And lime of oyster-shells, pepper, cardomum, and ginger, are also mentioned. Within land is the Kingdom of Pepper.

²¹³ *Φεπταλ*.

²¹⁴ Strabo, lib. xv. p. 686.

pout²¹⁵ rajahs. Now, were it possible to connect his interests with those of Guzerat, we might prove, that the trade carried on at Barugáza and Nelkunda was of such importance, as to make an intercourse necessary between these two Indian potentates and the emperor of Rome. If an Indian history of these early times should ever be obtained that possessed a degree of consistence or probability, some light might be thrown on this subject; at present it is mere conjecture and speculation.

I cannot quit the contemplation of this catalogue, however, without adverting to the last article on the list, which is the tortoise-shell procured from the Golden Isles, and the isles that lie off the coast of Limúrikè. The first, if not the Maldives, are Khrusè; but the latter are the Lackdives: both are still famous for producing the best tortoise-shell, and particularly the black sort²¹⁶, the finest in the world, which is found only here, or at the Philippines, and obtains an higher price than any that is procured elsewhere. But if the Maldives are dubious, the Lackdives do actually lie off the coast of Canara or Limúrikè; for though the bulk of them is to the southward, the²¹⁷ northernmost of the group is nearly in the latitude of Mangaloor; and the market where the tortoise-shell was procured, was Nelkunda. This one circumstance might have convinced d'Anville, if he had attended to it, that Limúrikè must be Canara, and could not correspond with Concan; for there are no islands on that coast, where any quantity of tortoise-shell could be obtained, sufficient to be considered as an article of general commerce.

²¹⁵ Rennell's Mem. last ed. p. 230.

²¹⁶ Harris, vol. i. p. 716. Purchas, vol. iii. ville's.

²¹⁷ See Rennell's corrected Map, and d'An-

This extent and value of the cargoes at Nelkunda, either carried out or brought home, is of greater amount than we have found at any other port, and more circumstantial than at any other except Barugáza. This appears correspondent to the course of the trade at present, but still more to the early commerce of the English, when their original factories were at Surat and Tellicheri. At Surat they obtained muslins, chintz, and cottons; and at Tellicheri, pepper and cardamums: for though the Portuguese multiplied their forts and settlements, the different productions of the north and south, on this western coast of the peninsula, were obtainable with sufficient facility at these two points. In conformity with this system we find, that throughout the whole which the *Periplus* mentions of India, we have a catalogue of the imports and exports only at the two ports of Barugáza and Nelkunda, and there seems to be a distinction fixed between the articles appropriate to each. Fine muslins, and ordinary cottons, are the principal commodities of the first; tortoise-shell, pearls, precious stones, silks, and above all, pepper²¹⁸, seem to have been procurable only at the latter. This pepper is said to be brought to this port from Cottonara, generally supposed to be the province of Canara²¹⁹, in the neighbourhood of Nelkunda, and famous²²⁰ to this hour for producing the best pepper²²¹ in the world, except that of Sumatra.

The

²¹⁸ The long pepper mentioned at Barugáza is an ordinary and inferior spice, more hot and pungent, with less flavour.

²¹⁹ Eli, Deli, or d'Illi, was the port frequented by the Chinese for pepper in M. Polo's time. Lib. iii. c. 26.

²²⁰ In the Sunda Rajah's country, adjoining to Canara, is the best pepper in India. Capt. Hamilton's Acc. of E. India, vol. iii, p. 260.

²²¹ Al Edrissi mentions pepper as growing only in Culam-meli (an island below Subara), and at Candaria, and Gerabtan. What Gerabtan is, I know not; but Candaria may mean the kingdom of Canara, p. 61.; because he says afterwards, it is near the mouth of a river in Manibar—Malabar, p. 65.; but it is not precise. Al Edrissi derives this from the Arabs of Renaudot, p. 9. p. 16. where it is written Kaucam-mali, and Kamkam; the same as Kemkem,

The pre-eminence of these two ports will account for the little which is said of the others by the author, and why he has left us so few characters by which we may distinguish one from another, so as to assign them proper positions on the coast. They seem to have been little visited for the purposes of commerce; and if they were touched at only from necessity, the stay there was short, and the observations transient; but the distinction of the provinces is clear, and if it has been found possible to give these from the testimony of our author, with so much precision as to prevent future deception, we shall not hereafter see the same place assigned to Guzerat by one author, and to Malabar by another; one of whom must be in an error of seven hundred miles. In limiting the provinces, and marking a few of the principal marts, all has been done that could be expected by those who are acquainted with the work; and if conjecture has never been resorted to, but where proof was unattainable, blame ought not to attach, because the discussion of impossibilities has been declined. I have said that it was dubious whether the author himself had ever been farther than Barugáza; but so many corroborating circumstances have come out in tracing the account of Nelkunda, that I would now rather fix the limit of his voyage at this port. Farther than Ceylon he *certainly* was not; and whether the fleets from Egypt ever reached that island previous to the embassy from the king of that country to Claudius, is highly problematical. Individuals possibly might have been there upon an adventure, but the amplifications of Pliny and Ptolemy manifestly

Kemkem, or Concam; and Kaucam-mali is therefore Concan of Mala-bar, adopting Malabar for the whole coast, as is still in usage. But if Al Edrissi has not copied from others, Culam-mali is Coulan of Malabar; and Coulan

is still a port of Travancore, where pepper is obtained. His styling this an island, is consistent with the usage of Arabian writers.—M. Polo mentions Coulam, or Covalam, with the same pre-eminence. See *infra*.

bespeak

bespeak an ignorance of the truth in their age; and if the voyage was not regularly performed, the knowledge of individuals was either not reported, or not believed.

XI. HIPPALUS AND THE MONSOON.

THERE is an additional reason for believing that the regular course of trade terminated at Nelkunda, which is, the introduction of the discovery of the monsoon by Hippalus at this place. And for this place I have reserved the discussion of that subject, because, though I shall continue my inquiries as far as Ceylon, I am persuaded that the author of the Periplus went no farther than this port.

The history of this I shall give as nearly as possible in the words of the author:

“The whole navigation, such as it has been described from
“Aden²²² and Kanè [to the ports of India], was performed formerly
“in small vessels, by adhering to the shore, and following the in-
“dentures of the coast; but Hippalus was the pilot who first disco-
“vered the direct course across the ocean, by observing the position
“of the ports, and the general appearance²²³ of the sea; for at the
“season when the annual winds, peculiar to our climate²²⁴, settle
“in

²²² Arabia Felix.

²²³ Σχήμα.

²²⁴ Ἀφ' ὧ καὶ τοῖς ἐκ τῆς Ἀραβίας φουρτῶνται τὰς κατὰ καιρὸν τῶν παρ' ἡμῶν Ἑτηρίων, ἐν τῇ Ἰνδικῇ Ἰν-
λάγῃ λεγόμενος φαινεται.

Some doubt will remain whether this pas-
sage is accurately rendered; for the antecedent
to ἀφ' ὧ is not clear; and the term Ἀραβία may
be thought improperly applied to the Medi-
terranean; but it seems used in opposition to

Ἰνδική, and by being joined with the Etesians
that blow [παρ' ἡμῶν] in our country, all am-
biguity is removed. I will not vouch for the
Greek of our author, in the usage of Ἀραβία,
because I think his language frequently in-
correct, or his text corrupt; but the general
sense of the passage is sufficiently clear. The
Etesian winds blow during the summer months
in Egypt; and the south-westerly monsoon,
in the Indian Ocean, is in its full vigour dur-
ing

“ in the north, and blow for a continuance upon our coast from
 “ the Mediterranean; in the Indian Ocean the wind is constantly
 “ to the south-west; and this wind has in those seas obtained the
 “ name of Hippalus, from the pilot who first attempted the passage
 “ by means of it to the East.

“ From the period of that discovery to the present time, vessels
 “ bound to India take their departure, either from Kanè on the
 “ Arabian, or from Cape Arômata [Gardefan] on the African side.
 “ From these points they stretch out into the open sea at once,
 “ leaving all the windings of the gulphs and bays at a distance, and
 “ make directly for their several destinations on the coast of India.
 “ Those ²²⁵ that are intended for Limúrikè waiting ²²⁶ some time
 “ before they sail; but those that are destined for Barugáza or
 “ Scindi, seldom more than three days.”

This account naturally excites a curiosity in the mind to inquire, how it should happen, that the Monsoons should have been noticed by Nearchus, and that from the time of his voyage, for three hun-

ing June, July, August, and September. If then we suppose the author to be a native, or a resident at Alexandria, the Etesians παρ' ἡμῶν, represent the effect of them where we live, and τοπικῶς φυσῶντων, the blowing of the winds which we locally experience. I render ἀφ' ἧ from the time or season, common both to the Etesians and Monsoons; and I do not join φαίνεται to προσονομαζέσθαι, with Salmasius, though I suppose that a connecting particle is wanting. See Plin. Exercit. 1186.

²²⁵ Καὶ τὸ λοιπὸν παρεπιφέρον πρὸς ἴδιον δρόμον, ἐκ τῆς χώρας ὑψηλαὶ διὰ τῆς ἑξωθεν γῆς παραπλέουσι τὰς προσημειωμένας πόλεις.

The general sense of this passage is clear; for ὑψηλοὶ, and ἰφ' ὑψέ, are used by this author to express sailing in the open sea; but

how to understand διὰ τῆς ἑξωθεν γῆς is dubious.

—Hudson renders it, ex regione excelsi per terram externam supradictos sinus prætervehuntur; where *per terram externam* is quite as unintelligible as διὰ τῆς ἑξωθεν γῆς, and *ex regione excelsi* certainly does not express the meaning of the author.

²²⁶ Τραχηλίζοντες, if it be not a corruption, has no sense in the lexicons which can apply to this passage. The meaning by the context is plain; but how to elicit it from this word, I know not. Hudson has very wisely omitted it.

A learned friend renders Τραχηλίζοντες, with *their heads to the sea*; ready to sail, but not sailing.

dred years, no one should have attempted a direct course, till Hippalus ventured to commit himself to the ocean. It has been sufficiently proved, that a communication was open between India and Arabia previous to the age of Alexander; and it is impossible to conceive, that those who lived either in India or Arabia, should not have observed the regular change of seasons and of winds, which recurred every year, and of which, if they were mariners, they could not fail to have taken advantage, every voyage they performed. It is likewise certain, that vessels frequenting either coast would accidentally be caught by either monsoon, and driven across the open sea to the opposite shore, if they happened to be a few days too early, or too late, in the season, for the voyage in which they were engaged. That this had happened, and that there was a direct passage by the monsoons in use between the opposite continents before the Greeks adopted it, has already been noticed from the *Periplus*, and fully proved. But in almost all discoveries, the previous obstacle is minute, and the removal of it accidental: thus it is, we may suppose, that the few vessels which did find their way to India from the ports of Egypt by adhering to the coast, from the beginning, sailed with the monsoon, both outward and homeward bound; but still followed the track which had been pointed out by Nearchus; and it was necessary for an Hippalus to arise, before it should be known, that the winds were as regular and determinate in the open sea, as upon the coast. The *Periplus* assigns the merit of the discovery to the observation of Hippalus himself; but there is nothing unreasonable in supposing, that if he frequented these seas as a pilot or a merchant, he had met with Indian or Arabian traders, who made their voyages in a more compendious manner than

than the Greeks; and that he collected information from them, which he had both the prudence and courage to adopt. Columbus owed much to his own nautical experience and fortitude; but he was not without obligations to the Portuguese also, who had been resolving the great problems in the art of navigation, for almost a century previous to his expedition.

But the discovery of the monsoon once made, could never afterwards be neglected; and the use made of it by the fleets from Egypt is fully detailed, and much in the same manner by Pliny and the Periplus. The course of the trade from Alexandria to Berenikè, and the progress of the voyage from Berenikè to Okêlis and Kanè, have already been sufficiently described²²⁷; but there are some farther circumstances connected with this, which cannot be suppressed without prejudice to the object in view. For Okêlis is mentioned by both authors²²⁸ as the better port to remain at; which is evidently consistent, because it is sheltered from the adverse²²⁹ monsoon; and the passage of thirty days to Okêlis, and forty to the coast of India, is a proportion so striking, that it could be derived from no other source but evidence of the most authentic nature. For the first distance is only about four hundred and eighty miles, and the second near nineteen hundred, and yet that there should be only ten days difference in the longer part of the voyage, is peculiarly appropriate to the two different seas in which the navigation was to be per-

²²⁷ P. 70. et seq.

²²⁸ Plin. lib. vi. c. 23.

²²⁹ The Immaum finding Aden to lie inconvenient for the trade of the Red Sea, because of the fresh winds usually blowing at its mouth in both easterly and westerly monsoons,

made him remove the trade about 15 leagues within its mouth, to a fishing-town called Mocha. Capt. Hamilton's Acc. of the E. Indies, vol. i. p. 19. That is, it is safer riding within the straits than without.

formed.

formed. The vessels destined for India left Berenikè about the middle of July, or earlier, if they were to go farther than Barugáza. The passage down the gulph was tedious; for though the wind was favourable, the shoals, islands, and rocks, in their course, required caution, and compelled them to anchor every night; but when the straits were passed, and a vessel was once within the influence of the monsoon, she had nothing to impede her course from Babel-mandeb to Guzerat; consequently, forty days allotted to her passage is neither disproportionate to her course down the Red Sea, nor too short²²⁰ a space for performing a voyage of nineteen hundred miles to India, notwithstanding the same run at present seldom exceeds fifteen. It seems at first sight a contradiction, that vessels which were to have the longer voyage to Malabar, should remain longer at Okêlis than those which were destined only for Scindi or Guzerat; but this likewise depends upon a circumstance peculiar to the monsoon upon the coast of India, which appears never to have been noticed by those who have undertaken to comment on the Periplûs.

It is sufficiently known, that the commencement and termination of the two different monsoons are subject to considerable fluctuation; so that though we say these winds are alternate, six months each way, we ought to subtract one month from the beginning and ending of each, which are not only fluctuating, but tempestuous. If then we examine the south-westerly or summer monsoon²²¹ in this respect, and consider May as the month in which it commences,

²²⁰ Nineteen hundred miles in forty days, thirty days from Maskat; whence we may give rather more than forty-seven miles a day; but the day's sail of an ancient vessel was 500 stadia, or fifty miles; and the course of a ~~ship~~ double: so that they must in this passage have sailed with great caution. But the Arabs, in the ninth century, employed

conclude, they had not much improved upon the Greeks. See the Arabs of Renaudot.— This run should properly be taken at Gardafan.

²²¹ The whole of this is from the Oriental Navigator, p. 211.

it is not finally settled till the beginning of June, a little earlier or later, according to the full or change of the moon²³²; and still it is to be observed, that during June and July "the weather is so bad, " that navigation is in some degree impracticable." In August it is more moderate, and in September the weather is still fairer; and though there may be an apprehension of storms, "you have often " fair weather for several days together," which continues, though liable to the same interruptions, till the middle of October.

This is the peculiar circumstance appropriate to the navigation of the ancients; for if we suppose a vessel to leave Berenikè on the 10th of July, and to arrive at Okêlis the 9th of August; after continuing there a week, ten days, or a fortnight, she will reach Muziris or Nelkunda, at latest, on the 1st of October; that is, at the very time when she has reason to expect the best weather of the season.

There is another singularity applicable to those vessels which are destined for Scindi and Barugâza, and which stay only three days at Okêlis or Cape Gardafan; this is, that the south-west monsoon sets in "earlier to the northward of Surat," than on the coast to the southward. Whether this circumstance is connected with their voyage, we have no data to determine; but if the monsoon commences here earlier, it is consequently settled earlier than in Malabar.

After thus conducting our fleet to the shores of India, it remains next to consider their voyage homeward-bound. And here we are informed by Pliny²³³, that they continued on the coast from the latter end of September, or beginning of October, to the early part

²³² The first new moon in September is called St. Anthony's Moon, and considered as the commencement of the N.E. monsoon.—C. Hamilton, vol. i. p. 255.

²³³ Lib. vi. c. 23.

of Tybi, or December. This allows two months, at least, for the disposal of their cargo, and taking in their lading in exchange. But the latest time of leaving the coast is within the first six days of Machiris; that is, before the ides of January, or the 13th of that month. Now it is very remarkable, that the original order for the fleets of Portugal was subject to the same regulation; for if they did not sail before the 8th²³⁴ of December, they were detained till the first week of the succeeding month. The reason for this, though not mentioned, is doubtless the change of the moon in both instances, at which time there are usually some stronger gales; and in this we have one more evidence of the same operations of nature producing the same effects in all ages.

Pliny styles the south-west monsoon, Favonius (which the Periplus calls Libo-Notus), and the north-east, Vulturnus; about which there is much learned disquisition in Salmasius. But we are now too well acquainted with these seas, to have a doubt remaining on the winds that were intended; and we conclude, that as the same causes have operated in all ages, they blew two thousand years ago as they blow at the present day. Not that they are fixed to a single point of the compass, but that north-east and south-west are their general direction. It is added by Pliny, that upon reaching the Red Sea, they found a south or south-west wind, which conveyed them to Berenikè, and enabled them to conclude their voyage in less than the compass of a year. This, likewise, is consistent with experience; for the winds in the Gulph of Arabia are almost constantly north and north-west, except for fifty days, when they are called the Gumseen²³⁵ winds, and prevail from the middle of March;

²³⁴ Caesar Frederick in Parchas, iii. p. 1708. tember.

who likewise mentions their arrival in Sep-²³⁵ Written Khâmfin.

during that period coming regularly from the south. If therefore we suppose a vessel to leave the coast of India between the 8th and 13th of January, forty days employed upon her return would bring her to Kanè, Aden, or Gardefan, towards the end of February. At any of these ports she might wait, so as to be prepared to take advantage of the Gumseen wind in the middle of March; and when she was once within the straits, this wind would serve her for fifty days to convey her to Berenikè, to Myos Hormus, or even to Arsinoè, the representative of the modern Suez. Thus, by embracing the opportunities which the regular seasons in the different seas afford, the whole voyage outward and homeward-bound would be performed with a wind constantly in her favour.

The next point to be considered is, the departure of this fleet from Okêlis, Kanè, or Cape Arômata. The two last are more particularly intimated by the Periplus; and Syagros, or Fartaque, by Pliny³³⁶. In this the merchant is most probably the more correct of the two; for, as we may conclude that he performed the voyage himself, so is Arômata, or Cape Gardefan, the point that divides the limit of the monsoon on the coast of Africa: for, on the authority of Beaulieu, we learn, that he passed from winter, storm, and tempest, to calm and summer, in an instant, on doubling this promontory. Here then was the point where their course was open before them, from one continent to the other; and when they were once at sea, there was nothing to change the direction of the wind till they reached the shores of India. On their return from India, they ran down their longitude first to the coast of Africa, tending to an

³³⁶ Pliny says, it was 1333 miles from Syagros to Pátala; which is not very distant from truth, for it is in a right line near 1200 miles.

object of magnitude which they could not miss or overrun; and then made good their latitude by coming up northward to the coast of Barbaria and the Red Sea. In effecting this we may conclude, that they directed their course, as nearly as they could calculate, to Arômata; but Ptolemy informs us, they sometimes got to the southward of it, and were carried much lower down than they wished; and sometimes we know that they came intentionally to Rhapta, Opône, and other marts on the coast of Africa, and proceeded afterwards to Arabia, or the Red Sea, according to their destination, interest, or convenience.

The commerce of the Arabians has arrested our attention throughout the whole progress of our inquiry, from the first mention of their imports in scripture, to the accounts of the present day. Their connections with the countries in their neighbourhood is equally obvious: in Syria, Palestine, Egypt, Persis, Mesopotamia, and on the Tigris, we find them noticed by Pliny³⁷; in India, by Agatharchides, and almost every subsequent geographer; in Africa, they are spread at this day from the Red Sea across the whole continent to Senegal; and in the Eastern Ocean they are found upon every coast, and almost upon every island. But general as the extension of their name and nation may have been, when we refer to their own accounts, nothing is more obscure³⁸—nothing less satisfactory. The information to be collected from the little tract of the *Periplus* is a picture of geography, in comparison of the two Arabian narratives published by Renaudot, of Ebn Haukal, or Al Edrissi; besides all the fabulous and the marvellous which we have to remove. Still

³⁷ Lib. xii. 17.

³⁸ They are obscure, not only from the want of longitude, latitude, and the direction of the coasts, but likewise from their adopting names that are neither native or classical, but terms of their own language and usage.

there are some particulars in these authors already noticed, which are worthy of attention; and something in the Arabians of Renaudot peculiarly connected with the object of our inquiry; for the general fact, that the Indian commerce had settled at Siraf in the ninth century, is a revolution of importance.

Siraf²³⁹ is upon the same coast in the Gulph of Persia as the modern Gomroon, and held the same rank at that time as Keish in the thirteenth century, and Ormus of a later date. The merchants of Siraf, in that age, evidently performed the voyage to China, and Chinese ships are mentioned at Siraf; but a closer examination has induced me to believe²⁴⁰ that they were not Chinese, but vessels employed by the Siraf merchants in the trade to China. The trade from this port, however it extended farther to the east, certainly met the Chinese fleets on the coast of Malabar; for there it is mentioned, that the Chinese paid a duty of a thousand²⁴¹ drams, while other vessels paid no more than from one dinar to ten.

But the ships that sailed from Siraf went first to Mascot in Arabia, for the same reason that the fleets from Egypt took their departure from Kanè and Arômata; that is, because they obtained the monsoon the moment they were under sail. The Arab has fortunately preserved this circumstance; for he says, "from Mascot to Kaucam-

²³⁹ It is written Shiraff, Sharraf, and, by M'Cler, Charrack, pronounced Sharrack.

²⁴⁰ In the port of London, a China ship is a ship destined for China; and in this sense, perhaps, the Arab says, that most of the Chinese ships take in their cargo at Siraf. He describes their passage down the gulph to Mascot; and upon mentioning the straits at Mussendon, he adds, "after we are clear of these rocks, we steer for Oman and Mascot." I conclude

from this, that the narrator actually sailed himself on board a Siraf ship for China, and in that sense called it a Chinese ship. P. 8. Eng. ed. I do not, however, think this proof so conclusive, as utterly to deny the navigation of the Chinese west of Malabar.

²⁴¹ Two Arabs. P. 9. Eng. ed. The sum is too small to be credible; 10,000 dinars are equal to 17. 17s. 6d. De Sacy, p. 332.

"mali is a month's ²⁴² sail, *with the wind aft*." Here then we have an evidence of the monsoon, and of the passage direct from one coast to the other, in harmony with the Periplus: we have a passage of thirty days from Mascat, proportionate to the forty days from Gardafan; and whatever Kaucam may be, we find in Mali a reference to Malè and Malabar, in which we cannot be mistaken. Al Edrissi, who copies this passage from the Arabs, writes the name ²⁴³ Kulam-meli; so that between the two authorities we may possibly discover Kulam on the coast of Malabar; and on that coast, in the kingdom of Travancore, there is still the port of Coulan, about eighty miles below Cochin; and another Coulam ²⁴⁴, or Coualam, to the eastward of Cape Comorin. Either of these may be the port intended by the Arabian Journal, as it informs us, that "after watering here, you begin to enter the sea of Harkand," that is, the ocean to the south of Comorin; and in another passage it is added, that "Kaucam is almost upon the skirts of the sea of Harkand."

I am not certain that I can follow my author farther; but if I understand him right, it is sufficiently evident, that though they sailed by the monsoon to Cape Comorin, they did not cross the Bay of Bengal by the same wind; but after rounding Ceylon, or passing

²⁴² The Arabs had not much improved upon the Greeks in the art of Navigation.

²⁴³ The difference of Kaucam and Kulam may be reconciled by supposing the translators misled by the want of the diacritical points; a difficulty which occurs to all translators in rendering proper names. Compare the Arabian Journal, p. 9. with Al Edrissi, p. 61. and p. 37. where Culam-meli is characterized as the Island (that is, the country) which produces pepper. Half the islands of the Ara-

bian geographers, are upon the continent.—Compare it also with Abulfeda, who calls it Caulam, the last port of India, where pepper is procured. Lat. 8. Melch. Thevenot, vol. i. p. 22.

²⁴⁴ This other Coulam, or Covalam, beyond Cape Comorin, is in the country of Tinevelli; but Paolino says, the first Coulan ought to be written Collam. P. 75.—The trade continued at Coulam in Marco Polo's time. See lib. iii. c. 25.

the straits of Manar, they stood on by Lajabalus²⁴⁵ and Calabar (which is the coast of Coromandel), and Betuma (the same as Beit Thuma), St. Thomè or Meliapor; and then by Kadrang and Senef to Sandarfulat, which ought to be the Straits of Malacca; and thence to China. There seems to be more coasting in this voyage than in that of Ptolemy; for he carries his fleets across from some point in the Carnatic to the Golden Chersonese, at once. But if his communication terminated there, the Arabs went farther east than his Sinus Magnus, and reached Canfu²⁴⁶ in China, which is the modern Canton, where they traded much under the same restrictions which Europeans experience at the present hour. After all, they confess that very few of their ships reached China; that the voyage was extremely dangerous²⁴⁷, and that water-spouts and tuffons were continually to be dreaded; added to which, at the date of their narrative in 867 of our era, the kingdom of China itself was distracted by internal commotions²⁴⁸, which made it no longer safe for merchants to venture into the country.

²⁴⁵ It is written Najabalus also, which d'Anville reads Nachabal for Nichobar. But the islands of Arabian writers are frequently not islands; and if the navigator went first to the Nicobars, and then back to the coast of Coromandel, he almost doubled the passage across the bay. Calabar, I suppose, stands in contrast to Malabar, commencing possibly at Calymere. Bet Thuma is the house or church of St. Thomas at Meliapor, near Madras: Kadrang and Senef, I cannot discover; but Senef I suppose to be the Sanf of Al Edrissi, which, he says, is ten days from Sandifalat; and Kadrang may be Arracan. Sandifalat can hardly be any thing else but the Straits of Malacca; but Renaudot reads it Sandar-Pulo, and converts it into Pulo-Condor,

which seems fanciful. It might be a subject of inquiry, whether Senef, Sanf, or Samf, may not be Siam. The sea opposite the coast of Coromandel is called *Mare Sanficum*, which may be the sea of Siam; but Siam extends across the peninsula, and the gulph of Siam *Proper* is on the eastern side. Al Edrissi, p. 34.

²⁴⁶ Canfu is the Chanecu of Al Edrissi. P. 37.

²⁴⁷ Between the sea of Harkand and Delarow there are 1900 islands (Arabs of Renaudot), which include the Maldives, Sarandiv, and Ceylon, in the sea of Harkand. Arabs 2. Al Edrissi, p. 31. The danger of the voyage was increased by these, as much as by the obstacles farther east.

²⁴⁸ The wars which preceded the dynasty of Sunga. Arabs, p. 41. remarks, 47.

But

But still it should be remembered, that the Arabians are the first navigators upon record, except the merchants of Cosmas, that penetrated to China; that they are antecedent to the Europeans in this voyage by more than six centuries; and that they had found their way to the northern²⁴⁹ frontier of this kingdom in the ninth century, while in the sixteenth, the Europeans were disputing whether Cathai and China were the same. We have no record of any European²⁵⁰ visiting this country by a northern route before Marco Polo, in the twelfth century; or of an European sailing in the sea of China between the time of that traveller and Nicola di Conti, in 1420. Barthema's voyage is between 1500 and 1504, immediately preceding the arrival of the Portuguese.

These circumstances will naturally suggest reflections in regard to the Arabs of the Desert, and the Arabs on the Coast. The sons of Esau were plunderers by prescription and profession; their hand was against every man, and every man's hand against them. The family of Jocktan²⁵¹, in Yemen, Hadramaut, and Oman, were as naturally commercial; and as they anticipated the Greeks and Romans in the navigation to India, and the modern Europeans in the discovery of China, it is no more than their due to ascribe to them a spirit of commerce, enterprize, or the thirst of gain, in ages which

²⁴⁹ Whether actually an Arab or not, I cannot discover; but the Arab says, he was acquainted with one, who had seen a man that had travelled on foot [by land] from Samarkand to Canfu, with a load of Musk; and had traversed all the cities of China one after another. This is a proof, at least, that the communication was open between Samarkand and China; and as Samarkand, at that time, was subject to the Moslems, this traveller was at

least a Mahometan, if not an Arab. Renaudot, p. 71.

²⁵⁰ Europeans had reached China, but from a different cause. M. Polo found a French goldsmith at Cambalu; but he had been carried off from Poland by the Tartars, who had made an irruption into that country.

²⁵¹ Cedrenus calls them, Interior Arabians. Aman and Jektan, p. 422. Yemen and Jocktan. *Toritu Oupitru ti nai EMHOPOI.*

no history can reach; and to conclude, that if the precious commodities of the East found their way to the Mediterranean, as undoubtedly they did, the first carriers on the ocean were as undoubtedly the Arabians.

Whether we are better able to understand the Greeks, or whether the Greeks are more intelligent and better informed than the Arabs, I cannot say; but Cosmas, who was never in India himself—who was a monk, and not the wisest either of his profession or his nation, is far more distinct and comprehensible in the sixth century, than the two Arabs in the ninth, or Al Edrissi in the twelfth. He gives a very rational account of the pepper trade in Malabar, and the meeting of the merchants from the East with those of Europe, from the Red Sea, and Gulph of Persia, in Ceylon, which in his age was the centre of this commerce; and he affords a variety of information, which the Arabians either did not know, or have not recorded. But we shall have recourse to him again when we arrive at Ceylon.

I have more than once noticed the Rajah, who, as Pliny informs us, attended the embassy from the king of Ceylon to Claudius, and who asserted, that his father had visited the Seres. I once thought that this Rajah went by sea; but upon a closer inspection of the passage, it is plain that he went by land from Bengal across the mountains called Emodi. Still we have, upon the whole, a proof, that through the intervention of different nations, a communication was open from the Red Sea to the country of the Seres. Whether the Seres are Chinese, has been much disputed; but that they were visited by sea, is true, if the evidence of Cosmas²⁵² is

²⁵² Cosmas calls them Tzinitzæ, and Tzinistæ. See Dissertation ii. infra.

sufficient;

sufficient; and that they were approachable by land through Tartary on the north, is asserted likewise by Pliny and Ptolemy. This is a peculiarity that suits no nation but the Chinese; and if we find this fact recorded from the time that history commences, it is a strong presumption that the same intercourse took place many ages antecedent to the accounts which have come down to the present time.

Whether the author of the *Periplus* himself sailed with the monsoon, or by the coasts which his narrative takes in succession, he has not informed us; but if he was in India more than once, he might have tried both the different routes. His leaving this circumstance undetermined, may induce a suspicion that he was a geographer, rather than a voyager. But the same circumstance occurs in Capt. Hamilton's Account of the East Indies: he gives the ports in succession, from the Cape of Good Hope to China; yet he certainly did not visit them all in one voyage, but gives us the result of the knowledge he had acquired in all his different navigations.

For this account of the monsoons, and the effects produced by them relative to the commerce of the ancients, no apology is requisite: it is of the very essence of the design proposed from the commencement of this work, which was intended not merely as a comment on the *Periplus*, but from the opportunities afforded by that journal to investigate the commerce of the East in all its branches; to trace its progress or situation in different ages, and to examine its relations, causes, and consequences, till the new era of discovery commenced by the efforts of the Portuguese, under the auspices of Don Henry, and the great work was essentially completed by the achievements of Gama and Columbus.

We return now to the narrative of the Journal, which was interrupted at Bârakê, for the purpose of introducing Hippalus to the acquaintance of the reader, and commences again with Ela-Bakarê, altered as to its orthography, in which it now corresponds with the Beccare of Pliny, and the Bâkarê of Ptolemy. It is now likewise augmented with the addition of Ela; in which, as has been observed, we recover the Eli of Marco Polo, and the d'Eli or d'Illi of our charts. In this passage there is mention of the Ruddy Mountain²⁵³; and then an omission in the text, which requires examination before we can proceed. I have lately learnt that d'Illi itself is not red, but that there are red hills, or land, both to the north and south of it: the red hill to the south, lying near the sea, is that which we must prefer for the Ruddy Mountain of the Journal; and as the features of nature are indelible, it is much satisfaction to establish the consistency of the narrative upon ground so well ascertained. I consider this, therefore, as a point fixed; but I ought not to omit, that the Oriental Navigator²⁵⁴ notices red cliffs much lower down, both on the north and south of Anjenga; and as we are approaching very fast to Cape Comorin, if it should appear preferable to others to assume these for the Ruddy Mountain, there is confessedly some ground for the supposition.

²⁵³ I have received the following extracts from Capt. Henry Cornwall's Remarks on the Coast of India, 1720; the work itself I have not seen:

"Southward of Mount d'Illi, in fair weather, you may see the Dutch settlement of Cananoor, which will bear N.N. by N. 4½ leagues; you bring the flag-staff N.E. by E. about two miles off shore, and then you will bring that peak seen over Calicut E. by N. over a *reddish bill* by the sea-side."
"Four leagues to the southward of For-

mosa there lies a *reddish bill*, by the sea-side." This must be a league north of d'Illi; for Formosa is five leagues from d'Illi, according to the Oriental Navigator, p. 223.

"When Mount d'Illi bore S.E. by E. about four leagues, Mount Formosa bore N.E. ¾ N. three leagues Two hills were in sight; one to the southward, and the other northward; the land hereabouts appearing *reddish* near the sea-side, especially towards sunset."

²⁵⁴ P. 227.

The

The omission ²⁵⁵ in the text may be supplied, by supposing that the country of Pandion is intended; and the sentence would then express, that after leaving Ela-Bákarè, you arrive at the Red Cliffs, and beyond them the Parália ²⁵⁶, or coast of the territory subject to Pandion, which fronts the south, and where you find the town of Kolkhi, and the Pearl Fishery. By this we are to understand, that he means the southern coast beyond Cape Comorin; and so he afterwards expresses himself; for he reverts to Comorin, and then proceeds again to Kolkhi and the fishing-ground.

Ptolemy makes no mention of the kingdom of Pandion previous to Komar; but commences the province of the Aii with Melênda and Elanki ²⁵⁷, and makes it terminate at Comar. This would embrace the modern Calicut, Cochin, and Travancore; and in this tract we have still an Aycotta near Cranganoor, that is, the fortress of Ai ²⁵⁸. In all other respects, the division of the provinces is nearly the same in Ptolemy and the Periplus, from Barugáza to Comar; and their want of correspondence here, is a circumstance in favour of both; for the kingdom of Pandion is placed by both on the eastern side of the peninsula, and Módura, his capital, is the present metropolis of Mádura. If he had a territory on the Ma-

²⁵⁵ 'Απ' Ἐλαβάκαρῃ τὸ λεγόμενον Πυρρὸν ὄρος ἄλλη παρῆκε χώρα τῇ καὶ ἡ Παραλία λεγόμενη πρὸς αὐτὸν τὸν νότον.

We may read, ἄλλη παρῆκε χώρα τῇ Πα-
διονικῇ, confirmed by the following clause:
Ἐν ἡ κοιλὸν Κολύμβησις ἐστὶν ὑπὸ τὸν βασιλεῖα Πανδίωνος
πινυῖ. But if by the text we are to under-
stand that Elabakare itself is called the Ruddy
Mountain, perhaps there is some further omis-
sion or corruption in the text. I wish to con-
sider Ela as Mount d'Illa, and Bákarè, or

Ela-Bákarè, as Ram-d'Illi, near the mouth
of the river where the vessels lay; and here
might be the reddish hill one league N. of
d'Illa.

²⁵⁶ We should naturally suppose that Paralia
was a Greek term, and literally *the coast*; but
Mr. Hamilton informs me, that Paralaya, in
Sanskreet, signifies the *remotest region*; that is,
the extreme part of the peninsula.

²⁵⁷ Nelkunda and Ela.

²⁵⁸ D'Anville, p. 116. Paolino, p. 86.

labar²⁵⁹ side, it was by conquest; and Pliny is in harmony with both: when speaking of his possessions on this side, he says, Módusa, the capital of Pandion, was at a great distance inland.

XII. BALITA, COMAREI, KOLKHI, PEARL FISHERY.

BALITA is the first place mentioned by the Periplus after leaving the Ruddy Mountain: it is the Bam-bala²⁶⁰ of Ptolemy; but we have nothing to determine its position, except the mention of its having a fine road for shipping, and a village on the coast. No representative of Calicut appears, and probably it did not then exist, nor for several centuries afterwards. The Kolkhi of the ancients has been frequently mistaken for it; but as Kolkhi is beyond Comorin, and is the seat of the Pearl Fishery, the supposition is impossible. Calicut²⁶¹ was the grand centre, for many ages, of all the Eastern and Western commerce, from its origin in 805²⁶² till the arrival of the Portuguese; and though its splendour is now eclipsed, it is still a place of great trade for pepper²⁶³, cardamums, fandal-

²⁵⁹ The country of Malabar Proper could raise more than twelve hundred thousand men, according to Capt. Hamilton, i. 288.

²⁶⁰ There is a Tum-bala on this coast still; but whether it is ancient or modern I know not, nor whether its position would be suitable, if those points could be ascertained.

²⁶¹ We have a Mahomedan account of the settlement of the Moslems at Calicut, taken from Ferishta, and published in the India Ann. Register 1799, p. 148. Miscel. But as Ferishta was a Mahomedan himself, so does he say, he has it from a poetical account; and though it preserves the outline of Ceram

Perumal's retirement, and the division of Malabar, it still contains much that is problematical, and seems a Mahomedan fiction to give the Moslems a legal settlement in the country. Subjoined to this account, however, there is a valuable note, giving an account of the kingdom of Bijnagar—its rise, power, and dissolution; and proving, that the influence of the Ram Rajah extended over Malabar.

²⁶² There are two dates, 907 and 805. D'Anville, Antiq. de l'Inde, p. 114.

²⁶³ Tellicheri, an English fort and factory, was established on this coast for the purpose of procuring these articles, and Angenga.

wood,

wood, and other commodities; much frequented by the vessels of Europe, and still more by the traders from the Red Sea, Maskhat, and the Gulph of Persia. These are circumstances too well known to be insisted on; and we must proceed to Comar, no less conspicuous in its situation at the apex of the peninsula, than in the preservation of its name through so many ages, and so many revolutions both of commerce and of empire.

At Komar there was an harbour and a fortress; with a garrison: there was likewise some religious establishment, in which those who dedicated themselves to the worship of the presiding deity first consecrated themselves by ablutions, and then entered into an engagement of celibacy. Women partook of this institution as well as men; and the legend of the place reports, that the goddesses to whom their services were dedicated, used formerly to practise the same ablutions monthly at this consecrated spot.

The name of the place, according to Paolino²⁶⁴, is derived from Cumari, a virgin deity, the Diana and Hecate of the Hindoo mythology. The convent²⁶⁵, he adds, still exists, and the same superstition is practised at a mountain three leagues inland, where they still preserve the tradition of Cumari's bathing in the sea. The Sanscreeet name, he adds, is Canyamuri, *Cape Virgin*, but contracted by the natives themselves into Comari, or Cumari. He mentions

²⁶⁴ Cumari, he informs us, signifies a virgin; but Comr is the moon, in Arabic; and Diana (as Phœbe) is the goddess of the moon, the sister of Phœbus. Whether Comr has such a meaning in Sanscreeet, or the goddess such an attribute in Hindoo mythology, may be enquired.

²⁶⁵ The religious of this sort, he says, are

called Jogi, *coenobites*, or Go-suami, *lords of the cow*, from their superstition relative to that animal; or Samana, *inoffensive*, because they deprive no creature of life. (These are the Germanai of Strabo.) They live in convents under a superior, sleep on the ground on mats of palm-leaf, and communicate little with the

world.

also a small port here, conformably to the account in the *Periplûs*; and a church, founded by St. Xavier, on a mountain close to the sea, which, report says, is dedicated to the Virgin Mary; but on this head the good Carmelite is silent, and I know not whether the report is true.

Circumstances so correspondent, at the distance of two thousand years, could hardly be found in any country except India; and to the local knowledge of Paolino we are much indebted. He has reprobated, indeed, all literary men, who presume to determine questions in their closet relative to countries which they have never visited; but though I and others, who pursue our studies in retirement, owe him something in return, I shall revenge myself by no other method, but by citing a beautiful passage from his work, descriptive of the *Paralia*²⁶⁶, or Coast of Malabar. Paolino, on his return to Europe, had embarked in a French frigate called the *Calypho*; and while he is pursuing his course between Cochin and Cape Comorin, he bursts out into a rapturous description of the scenery presented to his view:

“ Nothing²⁶⁷ can be more enchanting to the eye, or delicious to the senses, than is experienced in a voyage near the extremity of the peninsula. At three or four leagues from the coast, the country of Malabar appears like a theatre of verdure: here a grove of cocoa-trees, and there a beautiful river pouring its tribute into the ocean, through a valley irrigated and fertilized by its waters. In one place a group of fishing-vessels, in another a

²⁶⁶ Paolino is mistaken in supposing *Paralia* to be confined to the Pearl Fishery: it extends the whole way from *Elabâkarè* to the Fishery, and is literally the coast of Malabar;

in contradistinction to *Paralia Soringorum*, the Coast of Coromandel.

²⁶⁷ P. 371.

“ white

"white church"²⁶⁸, peering through the verdure of the groves;
 "while the gentle land-breeze of the morning wafts the fragrance
 "exhaled from the pepper, cardamum, betel, and other aromatics,
 "to a great distance from the shore, and perfumes the vessel on her
 "voyage with their odours; towards noon succeeds the sea-breeze,
 "of which we took advantage to speed the beautiful Calypso to-
 "wards the port of her destination."

Our Greek and Arabian conductors have no effusions of imagination, but a picture of the country where we are, drawn upon the spot with the enthusiasm and sensibility of an Italian, will make ample atonement for the digression. I need not add, that during the north-easterly monsoon, a voyage on the whole coast is effectually a party of pleasure.

We are now to proceed to Kolkhi and the Pearl Fishery, in regard to which Paolino is much displeased that none of the geographers have agreed²⁶⁹ in placing Kolkhi at Coléchè²⁷⁰. He will not allow any of us to know the least of the situation of places which we have never seen, and yet we shall build on his own premises to subvert his conclusion; for he, in conjunction with all our charts, places

²⁶⁸ There were many churches in this country, both of the Mission, and of the Malabar Christians; but the irruption of Tippoo destroyed every Hindoo pagoda, and every Christian church, as far as he penetrated. *As. Ref.* vii. 379.

To these Christians of St. Thomas, Alfred sent Sighelm, bp. of Sherbourne, who brought home many jewels, aromatics, &c. some of which remained long at Sherbourne. *Hacklüt.* ii. 5.

I wish we had more authority for this than

the tradition of Sherbourne, for Alfred deserves every honour which can be added to his name.

²⁶⁹ In Mr. Le Beck's Account of the Pearl Fishery it is said, that the best divers are from Collish, on the coast of Malabar. I conclude that this is Colechè. *As. Ref.* v. 402.

²⁷⁰ Questa città fu sovente confusa con Colavan, Colias, o Colis, degl' antichi, da quelli scrittori... che non avevano esaminato il sito locale delle due città tra se molto diverso. *P.* 74.

Coléchè²⁷¹ previous to Comorin; and therefore, whether we find a representative for Kolkhi or not, his assumption must be false; for both Ptolemy and the Periplus²⁷² place it, not to the westward, but the eastward of Cape Comorin. The Pearl Fishery is not now, and never was, carried on to the westward or northward of Cape Comorin. The Pearl Fishery is likewise marked out by another characteristic still peculiar to it; which is, that pearl oysters are found only at one place—the island of Epiodôrus, which can be no other than the isle of Manar²⁷³, and there the fishery is at the present hour. By the name of Epiodôrus, we may conclude a Greek of that name from Egypt was the first of his countrymen that visited this island; and where would a Greek not have gone²⁷⁴, if he had heard that pearls were to be obtained? The great request in which they were at Rome and Alexandria, seems to have marked them out, not indeed as of greater value than diamonds, but as a more marketable and preferable commodity for the merchant.

The power which in different ages has presided over the Fishery, whether native, Portuguese, Dutch, or English, has regularly taken its station at Tutacorin: the Fishery itself is always on the Ceylon side, towards Manar, at Chilao²⁷⁵, Seewel²⁷⁶, Condutchey, &c. The number of persons who assemble, is from fifty to sixty thousand;

²⁷¹ Capt. Hamilton says, between the middle and west point of C. Comorin. i. 333.

²⁷² Ἀπὸ δὲ τῆς Κομαρὲς ἐκτείνουσα χώρα μέχρι Κόλχων, ἐν ᾗ καλύμμεται τῶ πινικῇ ἔσιν.

²⁷³ Le perle nascono vicino a Mannar. Paolino, 374. But he says likewise, there are two fisheries: one to the westward of Ceylon, in the open sea; and another east of Cape Comorin, separated by the Straits of Manar.

Still both are to the eastward of Cape Comorin; and the island of Epiodorus removes all doubt. P. 373.

²⁷⁴ In Cœlum.

²⁷⁵ See Stevens's Hist. of Persia, p. 402. He says Chilao signifies a Fishery in the native language.

²⁷⁶ Mr. Le Beck's Acc. As. Ref. vol. v. p. 396.

consisting

consisting of divers, mariners, merchants, and tradesmen of every description. The Nayque of Madura, who was sovereign of the coast, and the representative of Pandion, had one day's fishery; the Governor of Manar's wife, when the Portuguese were masters, had another day, afterwards perverted to the use of Jesuits; and the owner of the vessel had one draught every fishing-day. After the fishery was concluded, the fair was kept at Tutacorin. The brokerage and the duty amounted to four per cent.—paid by the seller. The vessels were not fewer than four or five hundred, each carrying from sixty to ninety men, of which one-third were divers. Capt. Stevens supposes the pearl of Manar to be inferior to that of Bahrein.

This fishery is likewise described by Cesar Frederick, and a variety²⁷⁷ of authors. He informs us, that the divers were chiefly Christians of Malabar in his time; they are now a mixture of that description, of Roman Catholics, and Hindoos; but the superstitions practised to preserve the divers from the sharks, and other dangers of their profession, are all Hindoo. Several fanatics are well paid for their attendance during the fishery for that purpose; and the sharks are as obedient to the conjuration of a Bramin, as they could be to a Malabar priest; for the charm is not perfectly efficacious. Those who wish to enquire farther into the detail, will meet with a very excellent account in the Asiatic Researches (vol. v.) by Mr. Le Beck; in which he will find that this fishery, which used to produce 20,000*l.* to the Portuguese and Dutch²⁷⁸, produced, in the year 1797, 150,000*l.* under the management of the English²⁷⁹.

²⁷⁷ Purchas, vol. iii. p. 1708. By Marco Polo, lib. iii. c. 20. who mentions the Bramin; and Betala, as the seat of the fishery. The king had a tenth; the bramin, a twentieth.
²⁷⁸ Capt. Stevens.
²⁷⁹ 300,000 Porto Nova pagodas.

In the age of the Periplus, none but condemned criminals were employed in this service; a practice common to all the nations of the ancient world, in their mines, in their galleys, in the construction of their public buildings, and execution of all their public works. The mines of Potosi are still worked by slaves, where the same miseries are experienced as Agatharchides²⁸⁰ has depicted in the gold-mines of Egypt; while in Europe, or at least in England, we never want freemen to work in our collieries, in our mines of tin, lead, or copper, whose labour is procured, and whose dangers are compensated, by the higher price they obtain for the services they are to perform.

I ought now, in compliance with the nature of the undertaking in which I am engaged, to follow my author to the conclusion of his work; but as I am persuaded that he never went farther than Nelkunda himself, and that he has built upon report in all that is subsequent to that place; so does report grow so vague after quitting the Pearl Fishery and Ceylon, that though he mentions several circumstances in common with other authors, there is so much indeterminate, that I reserve it for a separate discussion. My reason for asserting this is, that he extends the Coast of Coromandel to the east; that he is no longer in particular, but general correspondence only with Ptolemy; and that he has extended Ceylon towards Africa, instead of assigning it a position where it actually exists.

²⁸⁰ Agatharchides had said a great deal more than his abbreviator has preserved:

Ἐπεὶ δὲ ἐν ἑαυτῷ τὸ πάθος δυστυχίᾳ κατα-
λιπὼν ἐκτραγῶδισας. Apud Hudson, p. 23.

But what remains is sufficient:

Ὅσα δὲ ἀνθρώπων ἄνθρωποι τῷ πλῆθει, πτωμάτων

(ὅπως ἰσὺς γίνονται) ἐκ ολίγων ἐν τοῖς χώροις καὶ
πλακῶδισιν υποσώμους γενομένων. P. 27.

The multitude of bones still found in these excavations is incredible, of wretches crushed by the falling in of the earth, as must naturally happen in a loose and crumbling soil.

Pliny

Pliny has said something of the passage between Ceylon and the continent, not very satisfactory indeed, but sufficient to shew his opinion, that the trade was carried on by this strait. The *Periplus* seems to confirm this idea, and Ptolemy has nothing to the contrary; but if the opening in Adam's Bridge, near Manar²³¹, was no deeper at that day than at present, no ship of burden²³² could have passed it. Pliny informs us, that throughout the whole of the straits the depth was not more than six feet; but that there were particular openings, so deep that no anchor could reach the ground. He is likewise so deceived in the position of the island, as to make the embassadors sent to Claudius astonished at seeing the shadows fall to the north; not reflecting that in their own country, if he had known its situation, they must have made the same observation annually, when the sun was to the south of the equator. These and many other errors of the ancients, induce me to enter more largely into the account of Ceylon than the nature of my work requires; and this I shall consider as the termination of my inquiry, leaving the remainder of the *Periplus* for a general discussion, by way of sequel to the whole.

²³¹ Pliny calls either this island, or Ramana Koil, the Island of the Sun.

Manar, in the Tamul language, signifies a sandy river; applied here to the shallowness of the strait. *Al. Ref.* v. 395.

The fishery is usually on the Ceylon side; as at the Seewel Bank, 20 miles west of Aripoo, Condatchey, &c. *Ibid.*

Hardouin allows that the Coliacum Pro-

montorium is not Comorin, but at the Straits of Manar.

²³² A passage in Pliny, omitted in the printed copies, is, *Magnitudo alterna millia ad forum*; which Vossius inserts and reads, *Magnitudo ad terna millia amphorum*. No ship of this size could now pass the straits.

Hardouin adopts this emendation, *lib. vi.* 24. without mention of Vossius.

XIII. CEYLON.

THE first account of Ceylon was brought to Europe by the Macedonians, who were with Alexander in the East. Onesícritus is recorded as the first author who mentions it, under the title of Tapróbana; and its variety of names in the East, as well as Europe, is one of the extraordinary circumstances that attend it.

Lanca²⁸³, or Langa, - is the true Sanskreet name, according to Paolino, p. 371. Vossius ad Melam, lib. iii. 7.

Ilam, - - - another Sanskreet name, seemingly joined with Lanca; Lanca-Ilam. Id. There is a fabulous island in Al Edriffi, Lanchialos, which he says is ten days sail from Sarandib. Is it not an error from Lanca-Ilam?

Salabham, - - - another Sanskreet name, signifying Sal, true; and labham, gain. Paolino.

Salabha-dipa, - - -

Salabha-dip, - - - Sanskreet. The Island of *true or real Profit*, from its rich productions of gems, spices, &c. Paolino.

Tapróbana²⁸⁴, - - - the first name brought to Europe. Bochart makes it טפ-פרון Taph Parvan, Littus

²⁸³ Lankoweh. Capt. Mahoney on Ceylon, Af. Ref. vii. 49.

²⁸⁴ Supposed by Burrows to be Tapo-bon, the Wilderness of Prayer. Ayeen Acbari, ii. p. 320. oct. ed. This is not so probable as

Tap-raban. Mr. Hamilton does not disapprove of Tap-raban, but adds, that there is no allusion to such a name of the island in any Sanskreet writing he has seen.

aureum, 2 Chron. iii. 6. and the Ophir of Solomon. But it is from Tape, an island, and Ravan, a king of Ceylon, conquered by Ram. According to the Af. Researches, v. p. 39. Tapravan, or Tapraban.

Salika - of Ptolemy, who says, it is the Taprobana of the ancients, afterwards called Simoindu, but now Sálíka or Sálíkè; the inhabitants, Salæ. Salíkè is therefore an adjective like Ariakè, Barbarikè, Limurikè, with γῆ or νῆσος understood. And the island of Salè approaches very nearly to Selen-dive²⁸⁵.

Seren-dip, - Σαραντίπ. Chylococcas in Vossius. Διὲς γ' ἔστιν αὐτοῖς νῆσος ἡ χώρα. Voss. ad Melam, 257. Var. ed. 569. Philostorgius.

Silen-dip, -
Selen-dib, -
Selen-dive, - the Seren-dib, or island Seren, Selen, of the Arabs; the Sarandib of Al Edriffi; the *Divis*²⁸⁶, and *Serendivis*, of Ammianus Marcellinus, who is the first author of the Latins or Greeks who uses this name. Divis, the Lackdives or Matdives, or islands in general. Seledivis,

²⁸⁵ There is a particular cast on the island at this day, called Salè or Challe, and Chalias: they are labourers, manufacturers of stuffs, and cinnamon-peelers; and if the antiquity of their establishment in the island (for they are not a native tribe) be established, the

name of the people, Salai, and of the island, Salíkè, would be naturally derived from them. Af. Ref. vol. vii. p. 431. in a highly curious Treatise on Ceylon, by Capt. Ed. Moor.

²⁸⁶ Divis is used in the case in which it occurs. P. 306.

Selen-dive, the island Selen. Am. Mar. lib. xxii. p. 306.

Palæfimoondū²⁸⁷

- of the Periplus. Pliny says there was a river and city of that name, with 250,000 inhabitants; the natives called Palæogoni, perhaps from Bali, the Indian Hercules. Paolino interprets it Parashri-mandala, the kingdom of Parashri, the youthful Bacchus of the Hindoo mythology. But it ought not to be omitted, that Mr. Hamilton considers Simoonto as expressing the *utmost boundary* or *extremity*; and Palifimoonto, as the limit of the expedition of Bali, the Indian Hercules.

Sindo Candæ, -

- so Ptolemy calls a town and the natives, on the west; Galibi and Mudutti, in the north; Anurogrammi, Nagadibii, Emni, Oani, Tarachi, on the east; Bocani, Diorduli, Rhodagani, and Nagiri [Nayrs], on the south.

Sailatta, -

- the name in usage in Malabar. Paolino.

Singala-dweepa,

- is the true Sanskreet name, according to

Sinhala-dviba. Paolino.

Mr. Hamilton; the island of Singala²⁸⁸;

for dwipa, or dweepa, is equivalent to the

²⁸⁷ Pulo Simoon. Vossius ad Mel. lib. iii. 7. p. 438. very much resembles the temples in Insula Siamensium, with the Persian addition Siam, Ava, &c. of Diu Div, an Island. This is a fanciful etymology; and yet the temple in Ceylon, described by Capt. M'Kenzie, Af. Ref. vol. vi. ²⁸⁸ Singha, a lion; Singhalais, lion-faced; from a fable of a king of Ceylon, born of a lion. Capt. Mahoney, Af. Ref. vii. 48.

diva of the Arabs: hence Singala-diva became their Selendive and Serendive; literally, the island of the Singalas, the Chingalese, and Chingulays, of the Europeans; the Singoos or Hingoos, as the natives still call themselves. I cannot help thinking this the most easy and natural of all the etymologies that have occurred; and I return my best thanks to Mr. Hamilton for the suggestion.

Cala, - - - the name used by the Arabs of Renaudot, p. 61.; but perhaps Sala²⁹.

If such is the fluctuation in the name of this island, the different reports of its size and situation are still more extraordinary.

Onesicritus estimates it at five thousand stadia; but, according to Strabo, mentions not whether it is in length, breadth, or circumference. I conclude that he means the latter; because, at eight stadia to the mile, this amounts to six hundred and twenty-five miles; which is not very distant from the truth, for in Rennell's last map

	Miles.
The length is - - - -	280
The breadth is - - - -	150
The circumference is - - -	660 ³⁰

If therefore we interpret Onesicritus rightly, he is entitled to the merit of correctness, as well as discovery; an honour due to very

²⁹ Other names in Harris, vol. i. 677. are, Tranate, Hibenaro, Tenarim, i. e. Tena-ceram; but these have been little noticed, and Tena-ceram is evidently an error.

³⁰ From Dondra Head to Tellipelli, 270 miles; from Colombo to Trincole, 160.—Hugh Boyd, in the India Ann. Reg.

few of the ancient geographers in distant regions; but to make amends, he adds, that it lies twenty days sail from the continent.

Eratosthenes reduces this distance to only seven days sail, which is still too much; for it is not more than thirty-five miles from Point Pedro to Calymere, and fifty from the point next Manar to the opposite coast at Ramana Coil, which is the point where Pliny measures, or about an hundred and seventy from Cape Comorin to Manar. But then Eratosthenes adds, that it extends eight²⁹¹ thousand stadia towards Africa; that is, according as we compute the stadium, either eight hundred, or a thousand miles, in a direction exactly the reverse of truth. In this I am forced to confess, that the Periplus has followed Eratosthenes, and added to his error; for it is stated in express terms, that it reaches almost to the coast of Azania²⁹², which lies opposite to it in Africa. In some account of this sort exists the cause of the error in the Arabian geographers; for Al Edrissi has confounded Cape Comorin, or Comari, with Comar²⁹³, that is, the island of Madagascar; and in his map he has actually placed Madagascar to the eastward of Ceylon. This arises from his extension of the coast of Africa to the East till it reaches

²⁹¹ Strabo, p. 72. 5000; p. 690. 8000.

²⁹² Καὶ σχεδὸν εἰς τὸ κατ' αὐτῆς ἀντιπαράκειμενον Ἀζανίας παρήκει.

²⁹³ It seems to admit of proof, that Al Edrissi has made two islands out of Ceylon, instead of one. Saranda, he says, (p. 28.) is 1200 miles in circumference; and Sarandib (p. 31.) is 80 miles long and 80 miles broad. And yet that Saranda is Ceylon, as well as Sarandib, appears manifest, by his placing the Pearl Fishery there, and making it a great resort of merchants for spices. He has a different mistake about Comar, or Comr; for Cape Comorin, and Comr the island of Mada-

gasfar, are confounded. In p. 31. Comr is a very long island [or country], the king of which lives in Malai. This is evidently the peninsula terminated by Comorin, the king of which lived in Malabar; and the island Sarandib lies seven days sail from it, which is the distance given by the ancients. But p. 34. we have Comr again, one day's sail from Dagutta: now this is Madagascar; for Dagutta is in Sofala. Perhaps, if we ever obtain a scientific translation of Al Edrissi, we may find distinctions to obviate this confusion; for his translator, Gabriel, knew as little of Ceylon as of Russia.

the sea of China, and the necessity he was under of making Madagascar parallel to the coast of Zanguebar.

It is with concern that I mention these errors, in which the author of the *Periplus* is involved, and upon account of which I am constrained to allow his want of information in every thing beyond this point, and to confine myself within the boundary of his knowledge, which must be fixed at Ceylon.

Strabo supposes Ceylon not to be less than Britain, and Josephus²⁹⁴ conceives Britain not less than the rest of the habitable world: these, indeed, are expressions at random; but what shall be said of the amplification²⁹⁵ of Ptolemy, who makes its

Length	1,050
Breadth	700
Circumference	2,450

He does not, indeed, extend it towards Africa; but he carries the extreme southern point more than two degrees south of the equator, which in reality is little short of six degrees in northern latitude. His errors descended much later than could have been supposed; for Marco Polo²⁹⁶ mentions this island as two thousand four hundred miles in circuit; and adds, that it had formerly been three thousand six hundred, but part of it had been swallowed up by tempest and inundation. And even so late as sixty years before the discovery of Gama, Nicola di Conti supposes the circumference to be two

²⁹⁴ Strabo, p. 130. Camden's *Britannia*, pref. lxxviii. See Pytheas Polyb. iv. 629. 40,000 stadia.

²⁹⁵ D'Anville observes, that this amplification is as 14 to 1.

²⁹⁶ I am not certain that the amplification

of M. Polo descends from Ptolemy; for he says, this is the size, in the mariners' maps, of India. Had Ptolemy seen such a map? or had the Mahomedans introduced the maps of Ptolemy into India?

thousand miles. Now what is most extraordinary in this is, that both ³⁹⁷ these travellers must have seen the island itself, and must have sailed beyond it, if not round it.

My purpose in producing these facts is not to expose the errors of those who have preceded me on the subject, but to shew how uncertain all information is, when grounded upon report. And yet, in the midst of this darkness, Ptolemy's information was such as, in one instance, to confirm the rank which he so deservedly holds in preference to others; for he gives the names of places more correctly, and more conformably to modern intelligence, than appear in any other author, Greek, Latin, or Arabian. This is a merit peculiar to him, not only here, but in the remotest and least known regions of the world: it proves that his inquiries were made at Alexandria of merchants or mariners, who had actually visited the countries he describes; but that they had not the means of giving true positions, because they had neither instruments for observation, or the compass to mark their course. The North Polar Star was not visible; and if they sailed by the Canopus in the southern hemisphere, as Ptolemy asserts they did, that star is not within fifteen degrees of the Pole, and would give occasion to a variety of mistakes. Still, under all these disadvantages, it is something to have procured names that we can recognize; and these names at once put an end to the dispute formerly agitated among the learned, whether the Tapróbana of the ancients were Ceylon or Sumatra. They prove likewise, that some merchants, or travellers, had reached the capital and interior of the island. By them the capital was found where Candy now is, and called Maa-gram-

³⁹⁷ Not Nicolas di Conti, unless upon his return.

num²⁹⁸, *the great city*, or metropolis, which was placed on the river Ganges, still called the Ganga, Gonga, or Ma-vali-gonga, *the great river of Bali*²⁹⁹, which flows to Trincomalee. The Hamallel mountains, among which is the Pike of Adam, are likewise laid down relatively in their proper position, and called Malê, the Sanscreeet term for mountains; and above all, Anuro-grammum³⁰⁰ is preserved in Anurod-borro, or Anurod-gurro, a ruin found by Knox, while he was escaping to the coast; which, he says, lies ninety miles north-west from Candy, and in a position correspondent with the account of Ptolemy. He found here three stone bridges; the remains of a pagoda or temple, such as no modern Ceylonefe³⁰¹ could build; and many pillars, with stone-wharfs on the river Malwatouwa. Sindocandæ is another name expressing the mountains of the Hingoos, the name by which the natives call themselves; and Hingo-dagul is their name for Candy; for Candi is a hill or fortress on a mountain; and Hingo-dagul, the city of the Hingoos, perverted by corruption into Chingoo-lees³⁰², by which name they are at present known to the Europeans settled on the coast³⁰³.

²⁹⁸ These facts are collected from Paolino, Knox, Ribeyro, Major Rennell, and particularly d'Anville: *Antiq. de l'Inde*, p. 150.

²⁹⁹ Bali occurs so repeatedly in Ceylon, that there is reason to think that Palæogoni in Pliny, is not a Greek compound, but expresses the descendants, or servants, of Bali.

³⁰⁰ Gramma signifies a city, in *Sanscreeet*. Paolino, p. 250. Knox, p. 6. Borro, boor, poor, and goor, have the same meaning.

³⁰¹ Knox, pp. 72, 80. The natives of Hindostan, the peninsula, or Ceylon; are not deficient in skill, art, or power, to execute such works as are found here, or at Elephanta; or at Elore. But the Hindoo governments are

not wealthy or powerful enough to support the expence; and perhaps the impulse of superstition has not energy enough to require it.

³⁰² For the whole of this, see Knox's *History of Ceylon*. He was seized after shipwreck, and detained 25 years a prisoner. He possessed the language; and though he may have his errors, is highly worthy of credit as an author of integrity, principles, and religion.

³⁰³ D'Anville likewise mentions the wild country on the south, where elephants are still found, with other resemblances; but these are sufficient to prove the fact for which they are adduced.

Bochart has many other names, in which he finds a resemblance; and those who know the country, by residing in it, might discover more; but I have confined myself to such as are incontrovertible; and these are sufficient to raise our astonishment, how a geographer could obtain so much knowledge of a country, without being able to ascertain its dimensions or position.

Ptolemy has still another particular which is very remarkable; for as he places the northern point of his Tapróbana, opposite to a promontory named Kôru, so has he an island Kôru between the two, and a Tala-Côri on Ceylon; and Kôry, he adds, is the same as Calligicum. This is denied by d'Anville, who separates the two capes, and makes Kôry, the point of the continent, at Ramiseram; and supposes Kalligicum to be Kalymere, or Kallamedu. This may be true or not, but it carries us away from the intention of the author; for Ptolemy has nothing to correspond with the northern head of Ceylon, now called Point Pedro³⁰⁴; but he makes his Borêum, or northern cape, erroneously indeed, opposite to Kôry; and his three Kôrys on the continent, on the intermediate island and on Ceylon, are in perfect correspondence with circumstances actually existing.

The expedition of Ram to Ceylon, and his victory over Rhavan, or Rhaban, king of that island, is one of the wildest fables of Hindoo mythology; but he passed into the island at the strait, since called, by the Mahomedans, Adam's³⁰⁵ Bridge. The whole country round, in consequence of this, preserves the memorials of his conquest. There is a Ramanad-buram on the continent close to the bridge; a

³⁰⁴ Tellipelli is more northerly than Point Pedro; but, lying out of the course of the voyage, is seldom noticed.

³⁰⁵ The existence of tigers, and other noxious animals, in Ceylon, almost proves an aboriginal

communication with the continent by means of this bridge. Elephants might have been imported, but a cargo of tigers is not probable.

Rami-ceram, or country of Ram; the island close to the continent; a Point Rama, on the continent. The bridge itself, formed by the shoals between Rami-ceram and Manar, is Rama's Bridge; and in Rami-ceram is Raman-Koil, the temple of Ram. This Koil or temple is undoubtedly the origin of Kôru; and the repetition of it three times in Ptolemy, is in perfect correspondence with the various allusions to Ram at the present day. Kôru is likewise written Kôlis³⁰⁶ by Dionysius, and the natives called Kôniaki, Koliiki, and Koliaki, by different authors. This fluctuation of orthography will naturally suggest a connection with the Kolkhi of Ptolemy and the Periplûs, which both of them make the seat of the Pearl Fishery; and if Sofikoorè be Tuta-cerin, as d'Anville supposes, the relation of Kolkhi to that place will lead us naturally to the vicinity of Ramana-Koil; for Tuta-cerin was the point where the Dutch presided over the fishery while it was in their hands, and maintains the same privilege now under the power of the English. But Koil, whether we consider it, with Ptolemy, as the point of the continent, or seek for it on the island of Ramiseram³⁰⁷, is so near, and so intimately connected with Manar, the principal seat of the fishery, that there can be little hesitation in assigning it to the Kolkhi of the ancients. Whether there be now a town of consequence either on the continent or the island, I am not informed; but that

³⁰⁶ Paolino supposes Kolis to be Covalam; but Dionysius evidently makes Kôlis the same as Kôru: *Νοτὶς προπαραδί κολωνης . . . Καλιὰδος, μεγάλην ἐπὶ νήσον ἔχει . . . Ταπροσάνην.*

³⁰⁷ See the account of Ramisar and Manar, in Capt. Mackenzie's Narrative, *Asiatic Researches*, vol. vi. p. 425; a paper which gives

the best account of the two islands, the straits, and Adam's Bridge, that I have yet seen. There does not appear any town or any buildings on this island, except those about the pagoda. The confux of pilgrims is immense. Koil, in the Tamul language, signifies a temple. P. 427.

Koil,

Koil, and Kolis, and Kolkhi, and Kalli-gicum³⁰⁸, are related, I have no doubt.

The Kolkhi of Ptolemy is on the coast, indeed, previous to a river called Solên; and such a river appears in Rennell's Map, with the name of Sholavanden applied to a town on its bank; or Solên³⁰⁹ may be the Greek term which signifies a shell-fish, alluding to the Pearl Fishery in the neighbourhood. If therefore we adhere to Ptolemy, the issue of this river would give the position of Kolkhi to a certainty; but the description of the Periplus would lead us directly to Koil, on the island Rami-ceram; for it is there said, that the Bay of Argalus succeeds immediately next to Kolkhi. Now the Argalus of the Periplus is the Orgalus of Ptolemy, which he places instantly subsequent to his promontory Koru; and if we suppose this promontory to be the extreme point of the continent north of Rami-ceram, which it is, we obtain the position of the Kolkhi of the Periplus, without a doubt. The island Kôru of Ptolemy is placed at a distance from the main, erroneously, as all his islands are; but as it is certainly the same as Rami-ceram, and Rami-ceram is separated from the continent only by a narrow channel, the

³⁰⁸ For Kalligicum, Salmasius reads Καλιαν-
κόν. Plin. Ex. p. 1113. And he adds, Præter alia
hæc removeor, Καλιανκόν vel Καλιακόν; veterum,
esse recentiorum Κόλκους. And yet, strange!
he thinks the Kolkhi of the Periplus to be
Cochin.

³⁰⁹ Solên, in its original sense, is a pipe or
flute, which the oblong muscle may be sup-
posed to represent, but not the pearl oyster.
Perhaps this muscle was found in the river,
without relation to the fishery. I learn from
Capt. Mackenzie, that there is a fishery on

this side of the Strait nearest the continent,
called Chanque, carried on along a range called
the Low or Flat Islands. The river, as d'An-
ville has observed, divides inland, and falls
into the sea by two mouths—one on each side
of Kôru. D'Anville, Antiq. de l'Inde, p. 123.
Af. Recherches, vol. vi. p. 426. Chanquo,
the native term for the pearl oyster, according
to Salmasius, is derived from Concha, and re-
ceived from the Greek and Roman traders.
1129.

island Kôru and the cape Kôru may therefore have been brought into one. I certainly think that Kôru, Kolis, Kolkhi, and Koil, are the same; but I am not so much led by the name, as by the position assigned to Kolkhi in the *Periplus*, immediately preceding the Bay of Argalus.

My own deductions on this question, I must confess, are contrary to Ptolemy; and his authority has induced d'Anville, Rennell, and Robertson, to assume Kilkhare which is at the mouth of the river. It is but reasonable to conclude, that the concurrence of witnesses so eminent will prevail against the evidence of the *Periplus*, and any thing I have to offer in its favour. Still, however, it is just to state the question fairly, and leave the determination to those who may chuse to scrutinize it more precisely. On one point all testimonies agree; which is, that Kolkhi cannot be Coleche, as Paolino with much confidence asserts; for it is impossible that it should be to the west of Cape Comorin.

From the fishery we may proceed to the island itself; and the most distinct knowledge we have of Ceylon from the ancients, is found in Cosmas Indicopleustes, whose narratives are as faithful as his philosophy is erroneous. He tells us honestly, that he was not at Ceylon himself, but had his account from Sôpatrus, a Greek, whom he met at Adooli, but who died five-and-thirty years previous to his publication³⁷⁰. This affords us a date of some importance; for it proves that the trade, opened by the Romans from Egypt to India direct, continued upon the same footing from the reign of Claudius and the discovery of Hippalus, almost down to the year 500 of our era; by which means we come within three hundred and fifty years of the Arabian Voyage published by Re-

³⁷⁰ Montfaucon fixes the last date of Cosmas's publication in 535.

naudot, and have but a small interval between the limits of ancient geography and that of the moderns.

Sôpatrus, as his name testifies, was a Greek; and I have not yet met with the name of a single Roman engaged in this trade³¹¹. Perhaps the jealousy of the emperors, which did not allow Roman citizens to enter Egypt without permission, had likewise forbidden them to embark in these fleets. But the intelligence derived from Sôpatrus is so perfectly consistent with all that has hitherto been adduced, and so correspondent to the Arabian accounts, which commence only three hundred and fifty years later, that it carries with it every mark of veracity that can be required. For Cosmas reports, from the testimony of Sôpatrus:

I. That the Taprôbana of the Greeks is the Sieli-diba of the Hindoos; that it lies beyond the Pepper Coast, or Malabar; and that there is a great number of small islands [the Maldives] in its neighbourhood, which are supplied with fresh water, and produce the cocoa-nut in abundance. The cocoa-nuts he calls Argellia; and Argel, or Nargel, I am informed, is the Arabic name of the cocoa-palm tree. He adds, that it is nine hundred miles in length and breadth, which he deduces from a native measure of three hundred gaudia; but if gaudia are cosses, his estimation of them is in excess; for three hundred cosses are short of five hundred miles—a computation too large indeed for the island, but still more moderate than that of the geographers previous or subsequent.

II. He acquaints us next, that there were two kings on the island: one called the King of the Hyacinth³¹², that is, the country above

³¹¹ The freedman of Plocamus, who reached Ceylon in the reign of Claudius, was not a Roman, and Plocamus is not a Roman name: he was himself probably a libertus of Claudius. ³¹² The ruby of Ceylon is proverbial. Pao-lino, dedication. Pliny, xxxvii. 41.

the Ghauts, where the ruby and other precious stones were found; and a second king, possessed of the remainder, in which was the harbour and the mart, that is, the low country on the coast, where, in different ages, the Arabians, the Portuguese, Dutch, and English, have been established. On the coast also, he says, there were Christians from Persia, with a regular Christian church, the priests and deacons of which were ordained in Persia; that is, they were Nestorians, whose catholicos resided at Ctesiphon, and afterwards at Mosul: in fact, they were the same as the Malabar Christians of St. Thomas, and occupied nearly the whole of the low country on the coast, while the native sovereigns, above the Ghauts, were Hindoos.

III. Another particular we obtain is, that in the age of Sôpatrus, Ceylon was considered as the centre of commerce between China and the Gulph of Persia and the Red Sea. The Chinese he calls Tzinitzes³¹³; a most remarkable term, expressing the natives of the Cheen, or Ma-cheen, of the Arabs; that is, either the peninsula of Malacca, or China itself; most probably the latter, because he mentions the same particulars as Ptolemy and Pliny assign to the Seres; that they inhabit the country farthest to the east, and that there is nothing but sea beyond it.

IV. The commodities obtained from China, or other places east of Ceylon, or found³¹⁴ there, are, silk³¹⁵ thread, aloes³¹⁶, cloves,

³¹³ Τζιντζαι.

³¹⁴ Οσα κατὰ χύμας ἵσται.

³¹⁵ Μίραζιν, read μέραζιν.

³¹⁶ So Al Edrissi: Aromata vero quæ in eodem Climâte [Ceylon] reperiuntur, sunt

caryophylla, sandalum, canfora, & lignum aloes, quorum omnium nihil invenitur in aliis climatibus. P. 38. But without any mention of cinnamon, though he notices the emerald and the ruby.

and sandal-wood³¹⁷. These articles are exchanged with Malè, or the Pepper Coast; or with Kalliana [Tana], which supplies in return brass, sesamum-wood³¹⁸, and cottons. Its commerce likewise extends to the Sindus, where the castor, musk, and spikenard, are found; and to the gulph of Persia, to the coast of Arabia, and to Adooli; while the several commodities of these countries are again exported from Ceylon to the East

V. We are next informed of the several ports of commerce, commencing from the Indus, in the following order: Sindus, O'rrotha³¹⁹, Kalliana, Sibor, and Malè; and if it might be permitted to interpret these Scindi, Surat, Bombay or Tana, Canara, and Malabar, the Periplûs would be in perfect correspondence with Cosmas and Sôpatrus. In Malè, or Malabar, he adds, there are five ports where pepper may be procured—Parti, Mangarooth, Salo-patan, Nalo-patan, and Pooda-patan. Mangarooth is generally supposed to be Mangaloor; and the three Patans, or towns of Salo, Nalo, and Pooda, are so evidently Malabar names, that it is highly probable those who are conversant in the native language of the coast may still discover them, however they have been superseded by the more modern ports of Calicut, Cochin, or Coulan.

VI. After this follow some accounts, not equally correct or intelligible; for we are informed, that Sielidiba is five times twenty-four hours sail from the continent; and that on the continent is

³¹⁷ Τζανδάνα.

³¹⁸ Σπασμυνὰ ξύλα. What this article means I cannot say; but it is mentioned in the Periplûs also, and is possibly a corrupt reading in both.

³¹⁹ If we suppose Orrotha related to the Oopara of the Periplûs, it is most probably on the Tapti, and equivalent to Surat; but there is a part of Guzerat, near Diu, called Soret. Orrot and Sorret are nearly allied.

Marallo,

Marallo, producing [pearl] oysters; with Kaber, that affords the alabandénon¹²⁰. For Kaber and its produce, I have no interpretation. Marallo I should have supposed to be Manar; but if it is upon the continent, it is Marawar. The five days¹²¹ sail may be softened, by supposing the departure from the last port visited in Malabar; but standing as it does, it is erroneous.

VII. It is then mentioned that the king of Ceylon sells elephants by their height; and an observation, that in India elephants are trained for war, while in Africa they are taken only for their ivory. This is true on the eastern coast; but the Ptolemies and Hannibal trained the African elephant for their armies. Another circumstance is noticed, which continues true to this day; which is, that the importation of horses from Persia pays no duty. Cesar Frederick mentions the same on the coast of Canara, in his time; and Hyder Alli had his agents dispersed from the Indus to Arabia, to obtain a constant supply for his numerous cavalry. The horse is said not even to breed on the whole western side of the peninsula; or if by accident a foal is dropped, it is worth nothing.

VIII. The last circumstance I shall notice is, a conference between the king of Ceylon and Sôpatrus, in presence of a Persian, who had boasted of the power of his sovereign: "Well! Roman," says the king, "what have you to say?" "Look," replied Sôpratus, "at

¹²⁰ Vossius reads ἀλάν; ἀλάν, which seems unintelligible; but he informs us it means nutmegs of Banda. We are, however, at present on the coast of Coromandel. Hoffman says, all merces barbaricæ are so called, as also toys and trifles.

¹²¹ Onesicritus - - - 20 days.
Eratosthenes - - - 7

Pliny - - - 4 days.
Cosmas - - - 5

The real distance, where the island approaches nearest to the continent, is short of 50 miles; from Cape Comorin to Columbo, about 180: both too short for any of the ancient estimates.

“ the coins of Rome and Persia : that of the Roman emperor is of gold, well wrought, splendid, and beautiful ; while that of Persia is an ordinary silver drachma.” The argument was conclusive ; the Persian was disgraced, and Sôpatrus was placed upon an elephant and paraded through the city in triumph. Vain as this circumstance may appear, two extraordinary particulars attend it ; for the king’s address to Sôpatrus is, ROOMI³²², the term used in India to express any inhabitant of those countries which once formed the Roman empire ; and the second is, that the Persians of that day actually had no gold³²³ coin, while the coins of Byzantium were the purest and finest in the world.

But in addition to these various particulars, Cosmas has left also some traces of natural history that do credit to his veracity ; for he describes the cocoa-nut, with its properties ; the pepper plant, the buffalo, the camelopard, the musk animal, &c. ; but the rhinoceros, he says, he only saw at a distance. The hippopotamus he never saw, but obtained only some of his teeth ; and the unicorn he never saw,

³²² Ρωμαῖν. If Cosmas had not meant to give the very word of the Ceylonese, he would have written Ρωμαῖν. In India the Turks are called Roomi, as possessing Constantinople, the seat of the Roman emperors.

³²³ I cannot help transcribing the passage as I found it by accident in Mascou’s History of the Germans :

Monetam quidam argenteam Persarum Rex arbitrato suo cudere consuevit. Auream vero neque ipsi, neque alii cuiquam Barbarorum Regi, quamvis auri domino, vultu proprio signare licet. Quippe ejusmodi moneta commercio vel ipsorum Barbarorum excluditur. Mascou, vol. ii. p. 98. from Procopius, lib. iii. cap. 33. See Cosmas also, p. 148.

The *exclusion* of the Persian coin is the very circumstance that took place upon this occasion ; and it should seem, that as the Greek coins of Bactria, &c. had been current when the merchant of the Periplus was at Barugaza, the Roman coin had now the preference, as the Imperial dollars, Venetian sequins, and Spanish piastres, have had a superiority in later times. For the purity of the Roman mint at Constantinople, see Clark on Coins.

I have seen the coins of the second Persian dynasty in M. de Sacy’s account of them, and if I recollect rightly, they have the head of the kings ; but I do not remember whether they are all silver.

but

but as it was represented in brass in the palace of the king of Abyssinia. I mention these circumstances to prove the fidelity of the traveller; for truth is as conspicuous in what he did not, as in what he did see. And after this extract, selected out of his voluminous work, if nothing equally precise or satisfactory is to be collected out of the Arabian writers, or Oriental accounts of any sort, let it not be deemed prejudice or partiality, if we prefer Greek or Roman authorities to all that can be found in any other ancient history whatsoever.

One part of the question has, however, eluded all my inquiries; which is, that I have not found the mention of cinnamon, as a native³²⁴ of Ceylon, in any author whatsoever. Iambulus, Pliny, Dioscorides, Ptolemy³²⁵, the author of the *Periplus*, and Cosmas, are all equally silent on this head, and all derive their cinnamon and casia either from Arabia or Mosyllon, or more especially from the Cinnamon Country, as they term it, on the eastern coast of Africa. That the ancients obtained the best and purest cinnamon, we know from their description of it; and that best sort grows no where but in Ceylon. That they might be deceived in regard to its origin, while they went only to Tyre, Sabæa, or the coast of Africa, is natural; but that they should not recognize it in Ceylon, when some merchants went thither in the age of the *Periplus*, and in all

³²⁴ It is mentioned by Matthioli, and in the preface to Ribeyro's History of Ceylon (Fr. ed.), that Strabo notices cinnamon from Ceylon. I have not found the passage; but at p. 63. I find the regio Cinnamomifera and Taprobana joined under the same parallel, which perhaps may have led to such a supposition; and again, p. 72. but in the latter passage we have the produce of Taprobana—

ivory, tortoise-shell, and other articles; and here I should have expected to find cinnamon, if the author had noticed it as a native of the island.

³²⁵ The language of Ptolemy is precise: he says rice, honey, ginger, the beryl, the ruby, gold, silver, and all other metals, elephants and tigers, are found in Taprobana; but does not mention cinnamon. P. 179. Taprobana.

succeeding ages down to the time of Sôpatrus and Cosmas, is unaccountable.

No voyagers, travellers, or writers, pretended to have visited Ceylon personally, except Iambûlus and Sôpatrus. I know not how to excuse even Sôpatrus, who was only once there casually; but against Iambûlus, who asserted that he had resided in Ceylon seven years, the charge of fiction is almost direct: no one could have been resident so long, without seeing cinnamon, the staple of the island; and that if he had seen it, he should not have recorded it among the other particulars he detailed, is incredible; for the curiosity of Greece and Egypt was as much alive to this inquiry, as to any one that regarded the produce of the East.

Dioscôrides³²⁶ and Galen knew it not. Dionysius, who lived under Augustus, preserves the fable of Herôdotus, that birds brought it from uninhabited islands. I do not pretend to have explored the whole range of antiquity on this subject; but the first mention of cinnamon, as the produce of Ceylon, that has occurred to me, is in the Scholiast³²⁷ of Dionysius on this very passage. Whether that circumstance

³²⁶ See Matthioli on Dioscorides, lib. i. capp. 12, 13. and p. 44. where the casia (our cinnamon) is said to come from Arabia, and the ancient cinnamon, or sprig of the tree, from Mosyllon. Casia is described by Theophrastus 370 years prior to Dioscorides; and by Herôdotus, in some degree. Strabo says, Arabia produces casia, cinnamon, and nard. P. 783. Matthioli adds, p. 46. that Strabo likewise says, cinnamon comes from the southern parts of India; but I have not yet met with the passage. Pliny follows Theophrastus. See also the curious account (p. 45.) that Galen gives of the cinnamon in possession of

Trajan, Adrian, Antoninus, Commodus, and Severus; in all which accounts not a word is found respecting its origin from Ceylon: those who would examine it, as now cultivated in that island, may consult Thunberg, vol. iv. 199.

³²⁷ "Ορνιθες δ' ἐπὶ νηυσὶν ἀοικύτου ἀπὸ νήσου Ἡδίου φύλλα φέροντες ἀκηρασίαν καναμύμην. Birds brought from uninhabited islands the leaves [rolls] of unadulterated cinnamon. Upon this the Scholiast writes . . . ἀοικύτου νήσου ἦσαν τὰς περὶ Τεπερσάνην. I conclude from this passage, that the Scholia are not by Eustathius; for the expression here is precise. But Eustathius writes

circumstance will prove the early date of that knowledge, or the low date of the Scholiast, must be left for others to determine. Sir William Jones has taken ample notice of this obscurity, and remarks upon the Cinnamon Country of the ancients in Africa, the limit of their geography to the south, that it does not produce a single specimen of this article in the present age, or in any former age, which can be ascertained. Bastard cinnamon is found in Malabar, and true cinnamon, though of an inferior quality, in Sumatra; perhaps also in other islands farther to the east; but that the best growth has been constantly in Ceylon, from all the evidence before us, is undeniable.

The spice we now have, which is the *kasia* of the ancients, was certainly *procured* in Africa; and the testimony of the *Periplus* is direct³²⁸, that it *grew* there. I state this with all its difficulties, which I cannot solve; but as there was a voyage constantly performed, from Barugáza to Africa, previous to the Greeks having any knowledge of such an intercourse, the only possible solution to be imagined is, that the merchants engaged in this commerce kept the secret to themselves: they imported it at Barugáza from Ceylon, and exported it to Sabêa, where it was first found by the traders from Egypt, by Solomon, and the Tyrians; and in a later age, to the ports of Africa, where they dealt immediately with the Greeks, without suffering by the monopoly of the Sabéans. How such a

writes, ἀπὸ νήσων . . . τῶν περὶ τὸ Ἐρυθραίων πέλαγος; that is, the islands in the Erythrean Sea, which is general.

It is not unworthy of remark, that these birds of the poet attend Bacchus at his birth, in conformity with Heródotus; and their appearance seems likewise to be in Arabia, from the context. See Dionysii Perieg. lin. 944.

and the Commentary of Eustathius, p. 267. ed. Ox. 1697, where the Scholiast is described, Paraphrasis veteris Scholiastæ ex codice MS. nunc primum eruta.

³²⁸ *Periplus*, p. 8. Ἐν αὐτῇ γενᾶται *Kassia*. And again, γίνεται ἐν αὐτῇ *Kassia*. And both verbs appear precise; for the imports from the East are specified separately.

secret

secret could be kept so long a time, or how the Greeks could be persuaded that kasia grew in Africa, is, with such lights as we have, inscrutable; but that it was not the produce of Africa, the general suffrage of all modern voyagers and merchants is sufficient to prove.

One circumstance worthy of remark is still to be considered; which is, that the merchant of the *Periplus* mentions kasia only, and never cinnamon. Cinnamon, as we have learnt from Galen, was a present for kings and emperors; but the kasia, the canna fistula, or pipe cinnamon, which we now have, was the only article of merchandize in that age, as it still continues. And now that Ceylon is in the hands of the English, it would be no difficult matter to obtain the tender spray of the four principal sorts noticed by Thunberg, and compare them with the accounts of Theophrastus, Dioscórides, and Galen. As the species which we have answer to their kasia, it is highly probable that the spray would answer to their cinnamon; for that both were from the same plant, or from different species of the same, there can be little doubt, as Galen acquaints us, that in the composition of medicines a double³²⁹ portion of kasia answered the same purpose as a single one of cinnamon; and that both entered into the theriac which he prepared for the emperor Severus.

Such is the account that has appeared necessary to be stated relative to the ancient situation of this celebrated island. The modern history of it may be obtained from Baldeus, Valentine, Knox, Ribeyro, Harris, Hugh Boyd³³⁰, Le Beck; Captains Mahoney, Colin

³²⁹ Matthioli, p. 47.

³³⁰ Mahony's, Le Beck's, and M'Kenzie's 1799: they are all valuable, and worth consulting. p. 32.; H. Boyd's, in the Ind. An. Register

Narratives, are in the Asiatic Researches, vol. vi. p. 425. vol. v. p. 393. and vol. vii.

M'Kenzie,

M'Kensie, and Percival. And I cannot conclude my commentary on the Periplûs without pleasure from the reflection, that the valuable commerce of this island is now in the possession of Britain; or without expressing a most anxious wish, that the country deemed a terrestrial Paradise by the Oriental writers—the repository of cinnamon, cloves, betel, camphor, gold, silver, pearls, rubies, and the other most precious commodities of the world—may find protection, happiness, and security, under the British government. And may the expulsion of the Mahomedans, Portuguese, and Hollanders, be an admonition to us, that conquest obtained by arms can alone be rendered permanent by equity, justice, and moderation!

S E Q U E L

TO THE

PERIPLUS OF THE ERYTHREAN SEA.

THE first place that succeeds after leaving Kolkhi, is the Bay A'rgalus², connected with a district inland [of the same name]. Here, and here only, all the pearls obtained in the fishery at the island of Epiodorus³ are⁴ [allowed to be] perforated (a) [and prepared for market]. Here also are to be purchased the fine muslins called Ebargeitides (b).

Proceeding

REMARKS.

(a) This would be in the modern district of Marawar, possibly the Marallo of Cosmas: Tutacorin, the place where the market is now kept, and the pearls taxed, is in Tinivelli, west of Rami-ceram. The earliest modern accounts agree in Tutacorin, while the power was in the native government; the Portuguese, Dutch, and English, have continued it there. Both Provinces, in the age of the Periplus, were in the kingdom of Pandion; and the Bay of A'rgalus was nearer Mádura, the capital, than Kolkhi, or Sofikoorè. This was a sufficient reason why the market should be rather on the east, than the west side of Rami-ceram.

(b) Salmasius reads Σίνδονες μαργαρίτιδες, muslins sprinkled with pearls. Hudson, & Plin. Ex. 1173. which, notwithstanding the pearls bored at Argalus, seems highly dubious.

NOTES.

¹ Πρώτος ἀγγαλός ἐν κόλπῳ κείμενος.

² Written in Ptolemy,

Sinus Orgalicus,

Sinus Agaricus,

Sinus Argaricus.

³ Manar.

⁴ Περνίται is the reading of Salmasius, which ought rather to be περνάται. The text stands τερνίται, for which, perhaps, τερνίται might be substituted. But perforation is manifestly intended, be the reading what it may.

Proceeding from hence, the most conspicuous of all the marts and anchorages on the coast are Kámara (c), Podooka, and Sôpatma. To these the traders from Limúrikè^s, and the other provinces north^e of Limúrikè, resort; and in these marts are found the native vessels which

REMARKS.

dubious. If we were to examine a catalogue of muslins at an India sale, we should find many names more strange than Ebargetides, derived either from the manufactures, or the place where procured.

(c) Where to fix any of these three places is mere conjecture; our course is still east, according to the Periplús; but if Kamara be the Chaberis Emporium of Ptolemy, as Mercator supposes, his Podooka is still higher up the coast, and our course ought to be north-east; and if his Manarpha be Maliarpha, or Meliapor, *that* place is the St. Thomè of Madras; in which case Podooka must be fixed somewhere on the coast between the Cavery and Madras, but where, it is impossible to determine. Sôpatma is not noticed by Ptolemy. Soro-patma would be the town of the Soræ, with some allusion to the Soræ of Ptolemy and to Coromandel; but it is all conjecture; and yet, notwithstanding this obscurity, we have manifestly a trade here described, regularly carried on by native traders, between Malabar and Coromandel, without the least notice of Greeks being concerned in it. We have an account that the specie brought by the Greeks to Canara, finally settled on the other side of the peninsula; and as we know that in all ages the commerce of India cannot be carried on without specie, so we see here its regular progress to the eastward. We are informed also, that the exports of Egypt to Canara, and the produce of Canara itself, went by the same conveyance to Coromandel; and that the principal articles in return were the muslins, as they are at this day: the merchants from Guzerat and Concan partook in this trade, and possibly those from Scindia. In the whole of this, without being able to specify particular places, we have a general picture of Indian commerce, so conformable to the accounts of the Arabs, and of the Portuguese upon their first arrival on the coast, that we want no further evidence to persuade us, that the commerce of India was as vigorous antecedent to history, as it is stated at the moment that history commences. The different sorts of vessels constructed in these ports are likewise correspondent to modern accounts: the monoxyla are still in

NOTES.

^s Canara.

^e Barugaza or Guzerat, Ariake or Concan.

which make coasting voyages to Limúrikè—the monoxýla of the largest sort, called sangara, and others styled colandiophônta, which are vessels of great bulk, and adapted to the voyages made to the Ganges and the Golden Chersonese.

To

REMARKS.

in use, not canoes, as they are sometimes improperly rendered; but with their foundation formed of a single timber, hollowed, and then raised with tiers of planking till they will contain 100 or 150 men. Vessels of this sort are employed in the intercourse between the two coasts; but the kolandiophônta, built for the trade to Malacca, perhaps to China, were exceedingly large and stout, resembling probably those described by Marco Polo and Nicola di Conti. Barthema likewise mentions vessels of this sort at Tarnasari (Masulipatam?), that were of 1000 tons (dolía?) burthen (lib. vi. c. 12. Grynæus), designed for this very trade to Malacca. This is the more remarkable, as d'Anville fixes the Mæfolia of Ptolemy at Masulipatam; and Ptolemy's point of departure for Khrusè, or Malacca, at the Godavery, twenty-six leagues only to the north. From these circumstances there is great reason to conclude that he is right; for Barthema had come from the Straits of Manar to Puleachat, north of Madras, and then proceeded to Tarnasari, where he embarked for Bengal, Pegu, and Malacca. How extraordinary, then, is the correspondence of the Periplus with the modern course of these navigators, from the Straits of Manar to the Carnatic! and from the Carnatic, passing the wild tribes of Orissa (still savage) between the Godavery and the Ganges; and then proceeding to Malacca, or the Golden Chersonese! Still however, with all this accuracy, he is in the same error with Ptolemy, carrying the whole course east till he reaches Désarênè or Orissa, and then giving it a northerly direction to the Ganges.

The other vessels employed on the coast of Malabar, as Trappaga and Kotumba, it is not necessary to describe: they have still in the Eastern Ocean germs, trankees, dows, grabs, galivats, praams, junks, champans, &c. names which have all been adopted by the Europeans, and which it is no more requisite to distinguish, than to explain our own brigs, snows, schooners, sloops, or cutters, to the Hindoos. But the mariners aboard the Indian vessels I have looked for in vain: neither Greeks or Arabs are mentioned; but as the manners and religion of the Hindoos exclude not foreigners from their country, it may be presumed that their seamen were always foreigners, possibly Malays, or even Chinese; for that the Hindoos themselves never used the sea, is almost indubitable. The whole voyage appears to have been made

To these marts likewise are brought all the articles prepared' [in Egypt] for the market of Limúrikè; and almost all the specie, of which Egypt is continually drained by its trade with Limúrikè, finally centres in this coast⁸, as well as all the produce of Limúrikè itself.

From the coast⁹, as the course of the navigators tends to the east round the countries which succeed, the island, now called Palaismoodus, but formerly Taprobana, lies out in the *open*¹⁰ sea to the west (*d*); the northern part of which is civilized, and frequented by vessels

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by coasting, and so it continued when we first meet with Arabs in these seas; which is the more remarkable, as the monsoon was known, and made use of between Africa and India; and the same monsoon prevails to the east, as well as to the west of Cape Comorin.

I do not find the Tarnasari of Barthema in the modern maps: it might lie between Puleachat and Bengal. But the peculiarity is, that there is an island Tanaferam on the coast of Siam, and the great river so called. Tana-feram is Regio Deliciarum. Vossius ad Melam, lib. iii. 7.

Mr. Marsden mentions the vessels that come regularly from Telingana, between the Godavery and Kistna, to Acheen, at this day. This tract answers sufficiently for the port assumed by Ptolemy, for the passage to Khrusè, and for the Tarnasari of Barthema; but does not determine the situation: it seems, however, to bespeak the same trade. Marsden's Sumatra, p. 312.

(*d*) The better knowledge of this passage which I have now obtained, obliges me to recall the argument which I had advanced on the meaning of *δύσις*, in the dissertation on *Εισαγωγή*, p. 17. I now understand that the island lies to the *west* as you sail to the *east* from Ceylon.

NOTES.

⁷ *Εἰς τὴν Ἀμερικὴν ἰσχυροῦνται, quæ in Limyrica elaborantur.* Hudson. But then it should be *ἐν τῇ Ἀμερικῇ*.

⁸ *Χρῆμα.* Res præterea omnis generis. Hudson. But *χρῆμα* is used repeatedly in the *Pe-*riplus for specie.

⁹ *Παραλία,* the coast of Coromandel, in con-

trast to the *Παραλία*, or coast of Malabar. In Ptolemy, Paralia Sore-tanum; and Sore is Core, Coro-mandel. Coro-mandalam of Paulino, the Millet Country. See d'Anville, *Antiq.* 127.

¹⁰ *Εἰς πῆλῳς ἰκινύται.*

vessels equipped with masts (e) and sails. The island itself [is so large, that it] extends almost to the opposite coast of Azania [in Africa]. Here pearls, precious " stones, fine muslins, and tortoise-shell, are to be obtained.

[But returning now to the coast, above Kámara, Podooka, and Sopatma, lies] Masalia, a district which extends far inland. In this country a great quantity of the finest muslins are manufactured". And from Masalia the course lies eastward, across a bay, to Désarênè, where the ivory is procured of that species" called Bôsarè.

Leaving

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(e) ἱστιοποιημένοις. I conclude that this means, they were vessels adapted to distant voyages, east or west, in contradistinction to the sangara and monoxyla, employed only on the coast; and the text of Strabo confirms this opinion: Ταπροβάνη . . . δέχιν δὲ τῆς ἡπείρου πλεῖν ἡμερῶν ἔκαστοι, ἀλλὰ κακοπλοεῖν τὰς ναῦς, φαύλως μὲν ἱστιοποιημένους, κατεσκευασμένους δὲ ἀμφοτέρωθεν ἐγκοιλίῃ μητρῶν χωρὶς. The vessels here meant are the monoxyla, built from the bottom without ribs, ill equipped with sails, and heavy sailers. In these vessels it was twenty days sail from the continent to Ceylon, but in others only seven: both distances are in excess, but they are palliated by Vossius, who supposes the distance to be measured from Covalam in Travancoor, to Pointe du Galle in Ceylon, as Pliny places the port of Ceylon on the south side of the island. Pliny has likewise a reference to Strabo, when he speaks of twenty days sail from the Prasii to Ceylon, in the paper-ships of Egypt, and seven in the Greek vessels. Prasii is evidently a corrupt reading; and how far paper-ships, or ships composed of the biblos, should venture on these voyages, is dubious. That they were used on the Nile is true: Radieibus papyri incolæ pro ligno utuntur. Ex ipso quidem papyro navigia contexunt. (Plin. lib. xiii. 2. & v. 22. See Salmas. 1116.) It is likewise to be noticed, that ἱστιοποιημένοις is a reading of Salmasius for πλοισιγενεῖς, in the Basil edition; but Vossius reads it τὸ πλεῖον ἡκοστὴν, they perform it generally in twenty days. This correction accords with Pliny, and approaches nearer to the text, corrupted as it stands; in fact, Salmasius takes ἱστιοποιημένους from Strabo, and Vossius ἡμερῶν ἔκαστοι.

NOTES.

" Transparent.

" Ἰνδοταῖ.

" The Arabs of Renaudot mention the

shinocotte, or havkandam, in the same country. P. 17.

Leaving Défarènè the course is northerly, passing a variety of barbarous tribes; one of which is styled Kirrhádæ, a savage race, with noses flattened to the face. Another tribe are the Bargooſi; and others (*f*), distinguished by the projection of the face like that of the horse, or by its length¹⁴ from the forehead to the chin; both which tribes are said to be cannibals.

After passing these, the course turns again to the east, and sailing with the coast on the left, and the sea on the right, you arrive at the Ganges, and the extremity of the continent towards the east, called Khrusè [or the Golden Chersonese].

The Ganges is the largest river of India; it has an annual increase and decrease, like (*g*) the Nile; and there is a mart on it of the same name, through which passes a considerable traffic, consisting of the Gangetic (*b*) spikenard, the Gangetic muslins, which are the finest manufacture of the sort, pearls, and betel.

In this province also there is said to be a gold mine, and a gold coin called Kaltis (*i*).

Immediately

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(*f*) Whenever an author arrives at the Country of Monsters and Anthropophagi, I conclude he is at the end of his knowledge: anthropophagi, however, there are still said to be in the Andaman Islands, and the fact is certainly proved in New Zealand; but the varieties of the human species, with horses' heads, with tails, or with heads which grow beneath their shoulders, still remain to be discovered. Of the Kirrhádæ, or Défarènè, I have found nothing; but I place the latter in Orissa. The ivory called Bofare may be the horn of the rhinoceros, much coveted in the East; and the animal is sometimes called Βῆς μονόκερος, *Bos unicornis*.

(*g*) The solstitial rains produce the same effect on both rivers.

(*b*) See the catalogue. Νάρδος, the regular importation of this odour, is from the Ganges or Bengal, whither it is to this day brought from Thibet.

(*i*) We have no account of a gold mine; but a gold coin called Kalteen, or Kar-teen, is still known in Bengal. *As. Ref.* vol. v. p. 269.

NOTE.

¹⁴ ἰσχυροσύντοι, μακροσύντοι.

Immediately after leaving the Ganges, there is an island in the ocean called Khrusè (*k*) or the Golden "Isle, which lies directly under the rising sun, and at the extremity of the world towards the east. This island produces the finest tortoise-shell that is found throughout the whole of the Erythræan Sea.

But still beyond this, immediately under the north (*l*), at a certain point "where the exterior sea terminates", lies a city called Thina,

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(*k*) Khrusè is mentioned as an island by Mela, Dionysius, &c. as a Chersonese by Ptolemy. It may be Ava, Pegu, or Siam, for they were all ostentatious of gold; but, placed as it is here, next to the Ganges [*καὶ αὐτὸν τὸν ποταμὸν*], its position must be erroneous. Ptolemy is more correct in fixing the Kirrhadæ in this situation, whom our author mentions previous to the Ganges; for Kirrhadæ bears some resemblance to the Hidrange or Kadrage of the Arabs, which seems to be Arracan; and if Arracan may be extended to comprehend the little district of Chitagong, it is contiguous to the Ganges, or rather to the Megna. Ptolemy adds, that the best betel is procurable in this province (see Dissertation); and it is from hence that the Sefatæ, or Bêfatæ, who are the Tartars of Lassa or Thibet, carry that article to the northern provinces of China.

(*l*) This strange passage I have rendered literally, but it is unintelligible without a comment. [*Under the north*] implies the same as is repeated afterwards, *under the Lesser Bear*. [*Where the sea terminates outwards*] intimates the existence of a circumambient ocean, like the Mare Tenebrosum of the Arabian geographers; to comprehend which, we must imagine the Golden Chersonese the last region east of the *known* world; but still that there is an ocean beyond it, surrounding the whole earth, and that Thina lies inland, in a country that is washed by this ocean. This notion, entangled as it is by an erroneous situation, and confused expression, still intimates, in accordance with Mela and Pliny, that Thina is the last country of the known world, and that there is nothing beyond it but the sea. If the author had an idea of a sphere, this sea would extend to Spain, which is Strabo's conception; if he thought the earth a flat surface, this sea is the ocean that surrounds it.

NOTES.

¹⁵ The Golden Continent and the Golden Island are evidently distinct here, as the Golden Province and Golden Chersonese are in Ptolemy.

¹⁶ *Εἰς Σινὴν τινὰ τόπον*. Σινὴν is an insertion of Salmassius's.

¹⁷ The Mare Tenebrosum of the Arabs.

Thina¹⁸, not on the coast, but inland; from which both the raw material¹⁹ and manufactured silk are brought by land, through Bactria, to Barugāza, or else down the Ganges [to Bengal], and thence by sea to Limúrikè, or the coast of Malabar (*m*).

To Thina itself the means of approach are very difficult; and from Thina some few [merchants] come, but very rarely; for it lies [very far remote] under the constellation of the Lesser Bear (*n*), and is said to join the confines of the Euxine Sea, the Caspian, and the Lake Mêôtis (*o*), which issues at the same mouth with the Caspian into the Northern²⁰ Ocean.

On the confines, however, of Thina, an annual fair or mart is established; for the Sêfatæ, who are a wild, uncivilized tribe, assemble there with their wives and children. They are described as a race (*p*) of men, squat and thick²¹ set, with their face broad, and their

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(*m*) See the Dissertation. All that went by land to Bactria, passed down the Indus to Guzerat; all that came through Thibet or Lassa, passed down the Ganges or Brama Putra to Bengal.

(*n*) See the Dissertation.

(*o*) For this inconsistency consult the Dissertation.

(*p*) If these Sêfatæ are the Bêfadæ of Ptolemy, which is generally allowed by the commentators from the attributes assigned to them by both, the Bêfadæ of Ptolemy are placed north of Kirrhâdia or Arracan, and correspond very well with the Tartars of Lassa, who might naturally be the carriers between China and Bengal. But why the betel-leaf should be carried in this form from Arracan to China, in order to be made

NOTES.

¹⁸ Τῶν Σινῶν ἐστὶν ἔθνος, καὶ ἡ τῶν Μη-
τρόπολις, ἣτις θεῖται προσαγορεύεται ὅριον τῆς ἐγνω-
μένης γῆς καὶ ἀγνώστης τυγχάνουσα. Marcian Heracl.
Hudson, p. 14.

Theinæ, the capital of the Sinæ, is the boundary between the known and unknown part of

the world.

In this Marcian is more perspicuous than Ptolemy, whom he usually follows.

¹⁹ Τὸ ἔργον.

²⁰ Τοῖς ἀπειστραμμένοις μέρεσι.

²¹ Κολοῦσαι.

their nose greatly depressed. The articles they bring for trade are of great bulk, and enveloped in mats²² or sacks, which in their outward appearance resemble the early leaves of the vine. Their place of assembly is between their own borders and those of Thina; and here spreading out their mats [on which they exhibit their goods for sale], they hold a feast²³ [or fair] for several days, and at the conclusion of it, return to their own country in the interior.

Upon their retreat, the Thinae, who have continued on the watch, repair to the spot, and collect the mats which the strangers left behind at their departure: from these they pick out the haulm, which is called PETROS, and drawing out the fibres, spread the leaves double, and make them up into balls, and then pass the fibres through them. Of these balls there are three sorts—the²⁴ large, the middle-sized, and the small: in this form they take the name of Malá bathrum; and under this denomination, the three sorts of that

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made up with the Areka nut, and then returned to India by the Chinese under the denomination of Malá bathrum, is difficult to comprehend. The distinction between the leaf and the nut seems to be preserved in petros and malá bathrum; for that petros is the betel, or betre, cannot well be doubted, when it is described as resembling the young leaves of the vine; for the betel is a delicate species of the pepper-plant, and that plant is almost constantly described as similar to the vine.—The description of the Sêfatae leaves little room to doubt that they are Tartars; and we have here, upon the whole, a description of that mode of traffic which has always been adopted by the Chinese, and by which they to this hour trade with Russia, Thibet, and Ava. See the Dissertation.

NOTES.

²² Ταπρόναις, sirpeis, literally mats made of rushes. These terms are applied by Pliny to the spikenard. Lib. xii. c. 26. The spikenard

²³ The word, in the original edition, was ἀντάζουσιν; for which Salmasius reads ἀντάζουσιν. was considered specifically as *the leaf*; how erroneously, may be seen in the catalogue. I propose ἀγοράζουσιν, they deal or traffic. Hence it became confounded with the betel

²⁴ Ἀδρόσφαιρον, μέγαςφαιρον, μικρόσφαιρον.— *leaf*, always used with the Areka nut.

that masticatory are brought into India by those who prepare (q) them²³.

All the regions beyond this [towards the north] are unexplored; either on account of the severity of the winter, the continuance of the frost, or the difficulties of the country; perhaps also the will of the gods has fixed these limits to the curiosity of man.

REMARK.

(q) ὑπὸ τῶν κατεργαζομένων αὐτὰ. Those who manufacture them—who are these but the Sinæ? If I had found that the Chinese brought them by sea, as they did to Ceylon in the time of Cosmas, my evidence for the performance of the voyage, either to or from China, would have been complete; but on this slender ground I dare not assert it, nor do I think it probable, for the betel might come down the Ganges as well as silk. The whole seems to be in irremediable confusion, with particulars founded on truth, and a total that is inconsistent.

NOTE.

²³ ὑπὸ τῶν κατεργαζομένων, rendered by Salmasius, Those who finish them, or make them up, for exportation.

DISSERTATION I.

ON THE SINÆ, THE SÈRES, AND THE TERMINATION OF
ANCIENT GEOGRAPHY ON THE EAST.

I. *The Name of China.*—II. *Sinæ of Ptolemy in Siam, Sinæ of other Authors, and Sères the same; Periplus, Eratosthenes, Mela, d'Anville.*—III. *Relative Situation of the Sères, with respect to Scythia, and India beyond the Ganges.*—IV. *Capital, Sera Metropolis.*—V. *Sères distinguished as Manufacturers of Silk.*—VI. *Intercourse between China, India, and Europe; Route from Ptolemy, Mæc the Macedonian.*—VII. *Modern Route—Marco Polo, Rubruquis, Carpin, Goez.*—VIII. *Route of the Séfatæ from Arracan to China—Dionysius Periegetes.*—IX. *Intercourse by Sea—Mela, Rajah of Pliny, Cosmas Indicopleustes.*—X. *Golden Chersonese, Voyage from Ceylon thither, Coast of Coromandel, Masuliputam, Ganges, Arracan, Ava, Siam, Cattigara.*—XI. *Longitudes and Latitudes of Ptolemy, however in Excess, still the Cause of modern Discovery; Navigation towards the West from Spain—Roger Bacon, Columbus, Map of Ptolemy; Eulogy of Ptolemy.*

I. **T**HINA, Sinæ, and Tzinistæ¹, so nearly resemble China and the Chinese, that upon the first view of these appellations, we are naturally led to conclude that they are the same. Serica also,

¹ Tzina, and Tzinitæ, and Tzinistæ, are Chinese, as Greek letters can; and of the the orthography of Cosmas Indicopleustes, country meant there can be no doubt; for he and approach as nearly to China and the mentions the silk brought by land from that country.

also, the Country of the Seres, which produces the silk, and the only country which originally produced it, is so pre-eminently and characteristically the same country, that if Ptolemy had not assigned two different positions for the Sinæ and the Sères, there would probably have been no dispute upon the question at the present hour.

But it is said, the Chinese themselves know nothing of this name. This, however, is of little weight in the subject of our inquiry; for the same nation in Europe which we call Germans, are styled Al-mains by the French, and Teutsch², or Teudesch, by themselves. The Jesuits who were in China have, however, endeavoured to find an approach to this found in Tan-djin, Han-djin, the people of Tan³ or Han, two of their early dynasties; and in Chen-fi, one of the principal provinces: but upon these similarities there is little dependance; for it is generally allowed, that the principal native appellation is T'hou-koue⁴, the Central Kingdom; and every nation in the world, from vanity, from relation to all the regions around, or from ignorance, is entitled to the same distinction.

But let us first inquire, how this name was brought westward? Manifestly not by the north, or by land, for the name obtained by that conveyance was Kathay and Kitai; but by sea it was first heard of—by the Macedonians, in the form of Thina; by Cosmas, in the form of Tzinistæ; by the Arabs⁵, as Cheen, or rather Ma-cheen,

country to Persia, 4500 miles; but he says, the passage by sea is much longer. And then adds, Περαιτέρω δὲ Τζινίστας οὐδὲ πλείεται οὐδὲ οἰκεῖται. Beyond the Tzinistæ there is no navigation, or habitable country. Montfaucon, Nov. Col. Patrum, tom. ii. p. 138. See infra, No. 8.

² And hence Dutch in our own language.

³ D'Anville, Antiq. de l'Inde, p. 179.

⁴ Other names occur in Isbrandt Ides, the Jesuits' Accounts, &c. &c.

⁵ Primi Arabes Seras cum Sinis confuderunt quorum errorum postea secuti sunt alii. Vossius ad Melam, lib. i. c. 2. note 30.

Great

Great Cheen, or Cheena; and by Marco Polo, as Cin, that is Cheen in the mouth of an Italian. The Portuguese likewise, who came from the West, acquired the same sound in their progress towards the East; and from them Cheena, or China, has descended to all the nations of Europe.

Cheen⁶ therefore, by all these several navigators, was obtained as they advanced towards the East; and the first country that bears the resemblance of the sound is Cochin-china, called by the natives, and by the Chinese, Kao-tchii-chin; by the Jesuits, Tchen-tchen; and by the Arabs, Cheen; the Sinia Sinarum of Al Edrissi. If then we reflect that all the kingdoms contained in the Great Chersonese, except Malacca⁷, partake of Chinese manners, habits, policy, and government, it was a natural consequence that the Arabs, when they first reached China, the superior and sometimes the sovereign of them all, should receive the name of Ma-cheen, or Great China, in comparison with these inferior kingdoms.

It is impossible to prove that these appellations are as ancient as the era of Alexander, because history is silent; but the acquisition of the same sound by all the nations which advanced by sea from the West towards the East, from the time of Alexander to the date of the Portuguese discoveries, is a strong presumption in its favour.

The first mention of Thina by the Greeks, is in the Treatise of Aristotle⁸ de Mundo (if that work be his); but the full notice of it is by Eratosthenes, and as Eratosthenes lived under the second

⁶ Marco Polo says, Mangi is called Chin. ⁷ The Malays are supposed to be originally in Zipanga, or Japan. This may be an error, Chinese by Barrow, but their language is for Marco never was in Japan; but it is an alphabetical proof that Mangi was called Chin in his age. ⁸ Aristotle died A. C. 322; Eratosthenes Lib. iii. c. 4. born 276.

Ptolemy, his mention of Thina is early enough to suppose, that the Greeks had no knowledge of so distant a region before Alexander, and knew it then only in consequence of his expedition.

Though the Macedonians proceeded no farther east than the Indus, they certainly acquired a knowledge of the Ganges and Ceylon: this we learn from history; and if their inquiries went farther, they had Persians, Indians, and Arabians, in their army, from whose report they might gratify their curiosity. If Aristotle, therefore, had heard of Thina, this must be the source of his knowledge; or if the Treatise imputed to him be not his, the knowledge of Eratosthenes must have been acquired, either from the same source, or from those who sailed on board the fleets from Egypt, and met the Arabian, Indian, or Persian merchants in the ports of Sabæa.

Let us suppose, then, that the whole of this was report, and let us conjecture from analogy by what we know, in a later age, to be fact. It would amount to this—that there was a trade between Arabia and India, carried on every year; that the merchants from Arabia met others on the western coast of India, who came from the eastern coast; that those on the eastern coast traded to a country still further east, called the Golden Chersonese; and that from the Golden Chersonese there was another voyage still to the east, which terminated at Thina; and that beyond Thina there was no proceeding farther, for it was bounded⁹ by the ocean which had never been explored.

A report, coming through no less than five intermediate channels, like this, would doubtless be loaded with much error, fable, and

⁹ In this, Mela, Pliny, Dionysius, Cosmas, and the Periplus, are all agreed.

inconsistency; but that by some method or other it did come, is undeniable; for the map of Eratosthenes is recorded by Strabo. It actually contained Thina at the extremity of the world east, bounded by the ocean: it was placed in the parallel of Rhodes, in lat. 36° north; and what is most extraordinary of all is, that this parallel passes through the present empire of China, within the great wall. I shall not build more on this than it will bear, but a reference to M. Gosselin's Map, delineated on this principle, will prove the fact; and this fact cannot be founded on imagination, or arise from fortuitous coincidence: there must have been some information on which it stands; and the wonder is, not that it should be attended with many difficulties and inconsistencies, but that, after passing through so many hands, it should retain so much truth.

II. SINÆ OF PTOLEMY IN SIAM, SINÆ OF OTHER AUTHORS,
AND SERÆS THE SAME; PERIPLUS, ERATOSTHENES, MELA,
D'ANVILLE.

THE Thina of Eratosthenes, however, is not to be confounded with the Thina or Sinæ of Ptolemy; for these, whether we place them, with d'Anville, in Cochin-china, or with Vossius and Gosselin, in Siam, are in a very different latitude and position. Their country does not face¹⁰ to the east, but to the west; and their latitude is not 36° north, but $2^{\circ} 20'$ south¹¹. But the Thina of Eratosthenes and Strabo, is the Thina and Sinæ of the Periplus, of which we have a certain proof; because the author says, that silk

¹⁰ D'Anville, by placing them in Cochin- to maintain), as well as Gosselin.

china, makes them face to the east; but in ¹¹ This is very well argued by Gosselin.
this he opposes Mercator (who had no system - Geog. des Grecs, p. 143.

is the produce of their country. This country, therefore, is the Sêrica of Ptolemy; and in this sense, the Sinæ and the Sêres are the same, that is, they are both Chinese.—We must now advert to the gross error of the Periplûs, which places Thina, the capital of the Sinæ, under the constellation¹² of the Lesser Bear; that is, in the age we refer it to, within twelve degrees of the Pole; a climate which, so far from producing the silk-worm, must be uninhabitable by man. How this error arose, must be explicable only by conjecture; but it appears to originate from one of two causes, which are perfectly different and distinct: for, first, we find the ancient geographers very observant¹³ of the disappearance of the Polar Star, as we advance to the south, and equally attentive to its re-appearance as we approach again to the north; it might happen, therefore, that the navigators who went to China, might have observed the loss of the Polar Star in the Straits of Malacca, and the recovery of it as they approached the coast of China; and this observation, conveyed through a multiplicity of reporters, may have caused the confusion between a latitude which lay under the Lesser Bear, and a latitude where the Polar Star became visible.

But if this cause should be thought too scientific to have given rise to so gross an error, there is a second, much more probable and natural; which is, that if we suppose a delineation of the habitable world, formed upon the principle of that which I obtained from

¹² Gossellin notices the approach of this star to the Pole. Ptolemy says, in his time it was 12 degrees from the Pole: *Μικρᾶς Ἀρκτὸς* ἔχοντος δὲ τῆς ἑρᾶς Ἀστὴρ ἀπέχον τὴ πόλιν μόλις. *u. c.* Lib. i. c. 7. And Gossellin, *Geog. des Grecs*, tom. ii. p. 127. in the time of So-

lomon, makes the distance $17\frac{1}{2}$ degrees.

¹³ See Pomp. Mela, lib. iii. c. 7. In aliqua parte ejus [Indiæ] neuter septentrio appareat. See also Marco Polo, as he comes up from Ceylon along the coast of Malabar. Lib. iii. c. 23. Ramusio.

Al Edrissi ¹⁴ in the former part of this work, or like the Borgian "Table in Sir Joseph Banks's possession, the degrees of longitude diminish so hastily as we approach towards the north, that they do not leave room to display all the regions which such a geographer as our author, must find it requisite to crowd into the space that he has to cover. This seems to be a natural source of the error which we find in the Periplus; and this opinion is confirmed by what he immediately subjoins: "Thina lies," says he, "at the Lesser Bear "itself; and it is said to join the limits of Pontus"¹⁵, which are towards¹⁷ the north, and the Caspian Sea, with which the Palus Méotis is connected, and issues into the ocean at the same "mouth." Here, besides the error common to many of the ancients, that the Caspian Sea was open to the Northern Ocean, we have a variety of other mistakes; added to which, China, Tartary, the Caspian, the Euxine, and Palus Méotis, are all huddled together in such confusion, that nothing but the construction of a map, on the principles here supposed, could produce.

Whether these excuses will avail in favour of an author, whose errors I wish not to extenuate, but explain, must be left to the judgment of others: beyond Ceylon, all he knew was from report; and on report only procured, first by the Macedonians, and afterwards by Megasthenes, Daimachus, Dionysius, and the merchants of Egypt, all the knowledge of the ancients must be founded. But whatever may be the error of position, there can be no mistake about the country intended. The silk fabric itself, and the mate-

¹⁴ The same circumstance occurs in Sanuto's Map, in the *Gesta Dei per Francos*. A little to the N.E. of the Caspian Sea a notice is inserted, *Incipit Regnum Cathay*.

¹⁵ In that map, Poland is almost as near China as it is to England.

¹⁶ Perhaps the Euxine.

¹⁷ Ἀπὸ τοῦ βορρῆος.

rial¹⁸ of which it is made, are both specifically applied, by the name of Sêrica, to the country of the Sinæ. This identifies them with the Sêres and Thina of the Periplûs; and that the Sêres are the Chinese, is generally allowed by the geographers of the present day.

D'Anville had¹⁹ certainly no pre-disposition in favour of this opinion; for in coming through Scythia towards the Sêres, he passes the country of the Eighurs from five to ten degrees west of China; and in that province he finds a tree which produces a fruit like the cocoon of the silk-worm. Here, perhaps, his own judgment would have induced him to pause; but he yields, honestly to conviction, and proceeding eastward into China, he fixes upon Kan-cheou, just within the boundary of the Great Wall, for the Sêra metropolis of Ptolemy. But there was in reality no ground for hesitation, nor any cause of solicitude for fixing on Kan-cheou, rather than Pekin, or any other great city, which might in that age have been the capital of the North; for the acquisition of general knowledge is all that can be expected in a question so obscure and remote; and the astonishing approach to accuracy which we find in Ptolemy, is one of the most curious geographical truths bequeathed to us by the ancients; for the latitude²⁰ of his Sêra metropolis is within little more than a degree of the latitude of Pekin, and nearly coincident with that of Kan-cheou. Whether, therefore, we chuse one of these, or whether there was any other metropolis in that age, we are equally in the country of the Sêres, and the Sêres are Chinese. They are the first of men, says Pliny²¹, that are known on

¹⁸ Θίνα, ἀφ' ἧς τὸ τε ἔριον καὶ τὸ θρόνον τὸ Σηρικόν.
P. 36.

¹⁹ Antiq. de l'Inde, Supplement, p. 233.

²⁰ Latitude of Sera metropolis 38° 36'; of Pekin 39° 45'.

²¹ Lib. iii. c. 17. or 20. Hard.

commencing

commencing our inquiries from the East, and their country fronted to the east. That there was nothing beyond them but the ocean, was the general opinion of the ancients; for, according to Strabo, "supposing" the world to be a sphere, there is nothing but the "immensity of the Atlantic Ocean, which should hinder us from sailing from Spain to the Indies upon the same parallel."

III. RELATIVE SITUATION OF THE SERES, WITH RESPECT TO SCYTHIA, AND INDIA BEYOND THE GANGES.

If the Sêres, then, are the first nation of the known world²³ commencing from the east, let us next inquire into their situation relative to the countries north and south. On this head, Mela and Pliny both agree that their boundary on the north²⁴ is Tabis, and Taurus on the south; that all beyond them north is Scythia, and all beyond them south, is India east of the Ganges. By the latter expression they mean, that the whole country, from the Ganges to the Eastern Ocean, is called India, comprehending all the regions in the Great Peninsula²⁵, which commences at the Ganges, and part also of the southern²⁶ provinces of China itself. What then are Tabis and Taurus, but two promontories advancing into the Eastern

²² P. 64. In respect to the parallel, this would have been true between Spain and China.

²³ In ea primos hominum ab oriente accepimus, Indos, Seras, Scythas. Spectant meridiem Indi, septentrionem Scythæ usque ad Caspium. Mela, i. 2.

Seres primi hominum qui nascuntur. Plin. vi. 17. or 20 Hard.

²⁴ Inter Tabin et extremum Tauri promon-

torium, Sêres. P. Mela, iii. 7.

²⁵ By the term of the Great Peninsula, I mean all the countries included in a line drawn from the mouth of the Megna, or Brahmaputra, to China, as the northern limit, and the Straits of Sincapura as the southern; comprehending Ava, Arracan, Pegu, Siam, Malaya, Camboya, Cochin-china, Lao, and Tonkin.

²⁶ The northern part of India, extra Gangem, terminates with Taurus. Strabo, p. 68.

Ocean,

Ocean, and marking the limits of the Ancient Sêres? Scythia, according to Pliny, commences at the issue of the Caspian Sea into the Northern Ocean, and extends all round the continent, fronting north and north-east²⁷, till it comes to Tabis, which divides it from the Sêres; and what is meant by Taurus may be discovered in Strabo, who informs us, that Eratosthenes prolonged Taurus from the Bay of Iffus in the Mediterranean, across the whole continent of Asia, dividing it by the same parallel²⁸ of latitude, till it terminated on the Eastern Ocean, that is, the Sea of China. At the termination was Thina, on the same parallel as Rhodes, which is 36° north; and this parallel, if we suppose it to be correct, would embrace all the northern part of China, between latitude²⁹ 36° and 40°; that is, if we fix the southern limit at the promontory of Taurus, in 36°, and the northern at Tabis somewhere about 40°. A reference to M. Gosselin's Map³⁰, delineated in conformity to the idea of Eratosthenes, will explain this better than words; and whether these promontories be real or imaginary, this is the hypothesis or system of the ancients. If Tabis has a representative, we might suppose it to be the termination of the Great Wall on the Yellow Sea, which divides China from Tartary; but the Wall does not end in a cape, and this must be left wholly to conjecture.

²⁷ Pliny, vi. 17. or 20 Hard. æstivum orientem.

²⁸ The cause of this supposition is, that the merchants who crossed this great belt of Asia, at whatever point it might be where their course directed, never crossed it back again towards the south, but proceeded through Tartary to China. By Ptolemy's route, they passed it in Hireania; by the route of the

Periplus, at Kabul; by the route of the Sefatai, or Besadai, in Laffa or Thibet; but Alexander, who came out of Sogdiana to the Indus, crossed it from north to south over the Paropamisus, perhaps at the Pass of Bamian.

²⁹ Seres media ferme Eoæ parte incolunt, Indi, et Scythæ ultima. Mela, i. 2.

³⁰ Géographie des Grecs.

IV. CAPITAL, SERA METROPOLIS.

IN regard to the capital, the Sêra Metropolis of Ptolemy, though it is not indifferent where we place it, yet it may be thought hazardous to maintain that it is Pekin. Pekin, however, or the Northern Court, is one of the oldest cities in China: it is situated near the Wall, and well adapted to form a frontier town against an invasion of the Tartars, the only enemy which the empire has had to fear in every age. It is remarkable also that Ptolemy, in one place³¹, calls Sêra the capital of the Sinæ, which makes it correspond with the Thina of the Periplus; and this so essentially, that if the great error of the author in carrying it to the Lesser Bear could be set aside, Thina and Sêra Metropolis would be identified. On account of that error, I do not insist upon this; but, upon the whole, the Sêres of Ptolemy coincide with the Sêres of Mela, Pliny, and Dionysius; and his latitude of the capital advancing so nearly to the parallel of Pekin, is one of the most illustrious approximations that ancient geography affords.

Without affecting precision, we have now a position for the Sêres in the northern provinces of China; and this deduction, as it is founded on the information of the ancients, is not much controverted by the moderns. But we have another characteristic of the Sêres, derived from the produce of their country, which is silk:

³¹ And not in one only. Lib. i. c. 11. Καὶ τὴν ἀπὸ τῆς λιθίνης πύργου μέχρι Σήρας τῆς τῶν ΣΙΝΩΝ μετροπόλεως. Where the Latin text runs, Usque ad Serras quæ SERUM est metropolis. Whether Σινών, therefore, be a false reading, must be left to the critics; but so it stands in the edition of Hondius 1605, which I use. The Sêres and Sinæ are again mentioned in conjunction, lib. vi. c. 16.; and through the Sinæ a line may be drawn, μέχρι τῆς ἐκτεθειμένης πρὸς τῇ ἀγνώστῳ γῇ πέρατος; and these are manifestly not the same as his Sinæ in lat. 2° 20' south.

this

this beautiful fabric we know, from the Chinese themselves, was the original manufacture of their country—specifically their own, by the prerogative of invention; and though communicated to other countries in their neighbourhood, and from the first mention of it, procurable in the ports of the Golden Chersonese, at the Ganges, and on the coasts of Coromandel and Malabar, still was it so exclusively and pre-eminently the attribute of China, that the Sinæ were, from this very circumstance, denominated Sêres, or Silk-worms, by the Greeks. D'Anville was fully aware of all the authorities³² that support this fact, and yet he objects, that they were styled Sêres before it was known that the material itself was the production of an insect.

V. SERES DISTINGUISHED AS MANUFACTURERS OF SILK.

THE mistakes³³ of the ancients on this subject; the fluctuation of the first reporters, who sometimes confounded it with cotton, and the opinion which long prevailed, that it was obtained from the bark or leaves of particular trees, have been sufficiently discussed by

³² Σῆρες, ζῶα νήθοντα μέταξαν, ἢ ὄνομα ἔθνης ὅθεν ἔρχεται καὶ τὸ ὀλοσήρικον. Hesychius in voce.

Seres, animals that spin the silk thread, or the name of the nation from whence the genuine silk comes. Ὀλοσήρικον expresses a web wholly of silk, in contrast to the mixture of silk with other materials in the manufactories of Tyre, Berýtus, &c.

Σηρῶν, σκαλῆκων τῶν γεννῶντων τὰ Σηρικά. Σῆρες γὰρ οἱ σκαλῆκες. Hesych.

Sêrôn, the worms that produce the silk; for Sêres is equivalent to worms.

See also Pausanias, Eliac. ii. sub fine.

D'Anville has all these authorities. Antiq. de l'Inde, p. 233. And Vossius cites Pollux, Servius, and Simplicius, as all informed of the worm; but certainly the whole process was not known till Justinian's time.

³³ Ubicumque apud veteres aut lini aut lanæ aut byffi Indici mentio fit, intelligendum id esse de Serico. Vossius ad Melam, lib. iii. c. 7.

The carding it from the leaves of a particular tree, and using water to facilitate the operation, occur in a variety of authors; that is, the cocoon was taken from the mulberry-tree, and wound off in water.

numerous writers on the subject; but that the Arabs had met with it in India before there were any Greek fleets in the Eastern Ocean, can hardly be doubted, by those who read that the Macedonians obtained their first knowledge of it in the countries bordering on the Indus. Hither it must have been brought in that age, either by the trade which passed between Patala and Malabar, or by the caravans through Scythia, on the north; for that in so early an age it was manufactured in India can hardly be admitted, when we observe that the author of the *Periplûs*, four hundred years later, mentions it in Malabar, not as a native production or manufacture, but as an article brought thither from countries farther³⁴ to the east. But in regard to China, his account is very different; for there, he says, both the raw material³⁵ and the manufacture were obtained. The pre-eminence in this respect is still due to the same country; for notwithstanding that almost all the nations of the East, and many in Europe, now breed the insect and weave the fabric, China is still *the Country of Silk*; the greatest quantity is still produced there, and of the best quality: it is the general clothing of the nation, and its superabundance still allows of a vast exportation to all the countries of the East, and to Europe itself.

In the course of this investigation, then, we have learnt from ancient authorities, that the *Sêres* are the *Thinæ* of *Eratósthene*s—the *Sinæ* of the *Periplûs*; that their country lies between Tartary, on the north, and India extra Gangem, on the south; that it is the remotest region³⁶ towards the east; that it is bounded on its

³⁴ Φέρεται ἐκ τῶν ἑσθ. τόπων. P. 32.

p. 137.

³⁵ P. 36.

³⁶ Διὰ μέταξον εἰς τὰ ἑσθ. τῆς γῆς τίνες ἐμπορίας οὐκ ἔστιν οὐκ ὀκνῶσι διελθεῖν. Cosmas, thread.

eastern front by the ocean; that the ocean extends (in their opinion), without interruption, on the same parallel to the coast of Spain; and that silk was brought from this country, where it was originally found, to India, and out of India, by the Red Sea, into Egypt, and from thence to Europe.

VI. INTERCOURSE BETWEEN CHINA, INDIA, AND EUROPE.
ROUTE FROM PTOLEMY MAES, THE MACEDONIAN.

BUT if silk was brought from the Séres to India, there were but two means of conveyance—by land, or by sea. Both are specified in the *Periplus*; for the author informs us, first, that the raw material and the fabric itself were conveyed by land, through Bactria, to Barugáza or Guzerat, and by the Ganges to Limúrikè.—But, omitting this for the present, let us examine what is intended by the route that is described through Bactria to Guzerat. A reference to the map will immediately shew us, that Balk, or Bactria, lies almost directly north of the western sources of the Indus; and as we know that the caravans at this day pass out of India into Tartary at Cabul³⁷, so is it plain that this was the usual course of communication, from the earliest times; and that the silks of China then came the whole length of Tartary, from the Great Wall into Bactria³⁸; that from

³⁷ The whole passage, as it stands in Purchas, is curious:—Beyond Cabul is Taul Caun, a city of Buddocsha (Badakshan). From Cabul to Cashcar, with the caravan, is some two or three months journey . . . a chief city of trade in this territory is Yar-caun, whence comes much *silk*, musk, and rhubarb; all which come from China, the gate or entrance whereof is some two or three months journey from hence. When they come to this entrance . . .

by license they send some ten or fifteen merchants to do business, who being returned, they may send as many more; but by no means can the whole caravan enter at once. William Finch in Purchas, vol. ii. p. 434.

³⁸ And by another caravan, to Palibothra on the Ganges. Καὶ οἱ ἐν μόνον ἐπὶ τῇ Βακτριανῇ ἐνταῦθ' ἴσιν ὁδὸς διὰ τῶν λιβίνων πύργων, ἀλλὰ καὶ ἐπὶ τῇ Ἰνδικῇ διὰ Παλλυμῶδων. Ptolem. lib. i. cap. 17.

Bactria they passed the mountains to the sources of the Indus, and then came down that river to Patala or Barbárikè, and from hence to Guzerat.

Ptolemy³⁹ has given us the detail of this immense inland communication; for, beginning from the Bay of Issus in Cilicia, he informs us, from the account of Marínus, that the route crossed Mesopotamia, from the Euphrates to the Tigris, at the height of Hierapolis; then through the Garamæi⁴⁰ of Assyria, and Media, to Ecbatana and the Caspian Pass; after this, through Parthia to Hecatompylos; from Hecatompylos to Hyrcania; then to Antioch in Margiana; and hence, through Aria, into Bactria. In this province, the line of Marínus falls in with that of the Periplus; and from this it passes through the mountainous country of the Kômédi⁴¹; then through the territory of the Sacæ⁴² to the Stone Tower⁴³; and to the station of those merchants who trade with the Sêres; from this station the route proceeds to the Casii or Kashgar, and through the country of the Itagûri, or Eyghurs of d'Anville, till it reaches Sêra Metropolis, the capital of China itself. The extent of this communication, which is in a right line upwards of four thousand miles, would have been protracted by the estimate of Marínus⁴⁴ to double the space⁴⁵ to which it is reduced by Ptolemy, and yet Ptolemy makes it ninety degrees, or upwards of six thousand miles. But contracted as it is

³⁹ Lib. i. c. 12.

⁴⁰ Aramæi?

⁴¹ I have little hesitation in supposing that the Kômédi are to be placed in Badakshan, as mountains are the attribute of the country.

⁴² The Sacæ, without assigning them precise limits, answer more nearly to the Usbecks than any other tribe. The Stone Tower

would be in the eastern part of their country, towards Kashgar.

⁴³ See Ptol. tab. vii. Asia. Itagûri.

⁴⁴ Ptol. lib. i. c. 11.

⁴⁵ According to Marínus, it was 24,000 stadia from the Stone Tower to Sera; that is, either 2400 or 3000 miles: the real distance is short of 1400. Ptol. lib. i. c. 12.

by modern geography, it is astonishing that any commodity, however precious, could bear the expence of such a land-carriage; or that there should have been found merchants in the Roman empire, who engaged in this commerce throughout its whole extent—who actually conveyed the produce of China by land to the Mediterranean, without the intervening agency of the nations which possessed the countries through which it passed. But this is a fact actually preserved by Ptolemy; for he informs us from Marínus, that Maes, a Macedonian⁴⁶, whose Roman name was Titianus, did not indeed perform the journey himself, but that he sent his agents through the whole extent of this extraordinary peregrination.

In what state the Tartar nations then were, which could admit of such a traffic through all these different regions, it is now extremely difficult to determine; for though caravans have passed within these few years between China and Russia, and though there was a communication⁴⁷, and perhaps still is, between that empire and Samarkand, as also with the Usbecks, this was carried on by the natives of the respective countries, and afforded no passage for merchants to pass throughout, from one extremity of Asia to the other.

VII. MODERN ROUTE—MARCO POLO, RUBRUQUIS, CARPIN, GOEZ.

THERE was a period indeed, during the time of Zingis and his immediate successors, when the power of the Mongoux extended from the Sea of Amour to Poland and the Euxine; and when there was a regular intercourse, by established posts, throughout this vast

⁴⁶ Lib. i. c. 11.

⁴⁷ The centre of this traffic should be Cashgar; and so it appears in the journal of Benedict Goetz.

extent;

extent; by means of this, Marco Polo, his uncle, and his father, Rubruquis, Carpin, and others, actually reached the court of Cambalu, and returned again by passports from the emperor. It was Marco Polo, the first of modern travellers who brought to Europe any consistent account of this vast empire—who entered China by the north, and returned by sea to Bengal. His route outwards is not easy to trace, because his descriptions diverge both to the right and to the left; but it is highly probable that he entered China nearly by the same route as Goetz did, from Kashgar: this would have brought him to Sochieu, or some other town in the neighbourhood, to reach which he might not have passed the Great Wall. But if this would account for his not mentioning it in the first instance, it does not solve the difficulty; for the court of Coblai, like that of Kien-long the late emperor, was a Tartar court, frequently kept in Tartary as well as China; and during the many years which he attended Coblai, he must have been in both. He did not bring the name of China to Europe, but Cathai and Mangi only, because he obtained those appellations alone which were in use among the Tartars; and it was several centuries later, before it was known that Cathai and China were the same. We are contending here only for the existence of the communication, and endeavouring to shew, that in the middle ages it was the same, or similar to that of the ancients. But from the time when the empire of the Tartars broke into separate governments, no travellers or merchants from Europe dared to attempt the dangers and exactions which must have attended them at every step, and when the progress of Mahomedism, in these northern courts, brought on an additional suspicion and hostility against every Christian who should have entered their country.

The

The only attempt in later times, that I am acquainted with, is that of Benedict Goez⁴⁸, a Portuguese Jesuit, who left Agra in the beginning of 1603, and proceeded by Lahore to Cabul; and from Cabul, by way of Balk and Badakshan, to Cashgar. At Cashgar, the caravans from India met those which came from China; but so difficult was it to proceed, that though Goez obtained the protection of the king of Cashgar, he did not reach Sochieu, the first city within the wall of China, till the end of the year 1605; and at Sochieu⁴⁹ he closed his life and his travels, in March 1607, without having obtained permission to go up to Peking, or join his brethren who were established in that capital.

The undertaking of Goez is one of the most meritorious, and his account one of the most interesting, that is extant; for it is a regular journal kept of his progress, specifying every country, and every place, through which he passed⁵⁰. The enumeration of the days he travelled is three⁵¹ hundred and ninety, besides some that we cannot ascertain, and exclusive of the delays he met with at various stations. But from him we learn, that Sochieu was the same sort of mart for the caravans of Cashgar, as Kiachta is for the Russians; that it was inhabited half by Chinese and half by Mahomedans; that the merchants of Cashgar were admitted into China, and suffered to go up to Peking only under the colour of an embassy⁵²; that they brought presents,

⁴⁸ The account of Goez is in Trigault and Kircher, but it is here from Purchas, vol. iv. p. 310. ⁴⁹ As estimated by Bergeron, tom. i. *Traité des Tartares*, p. 75. I cannot make them so many.

⁵⁰ The city marked on Marco Polo's Map, where he entered China, is Sacciu, which, with the Italian pronunciation, approaches very near to Socieu. ⁵¹ The same sort of trade he mentions likewise from Cochin-china, Siam, Leuchieu, Corea, and eight tribes of the Tartars: they all come under pretence of an embassy, and all the presents they bring are styled Tribute: the emperor

⁵² In all which I believe it is unique.

presents, which the Chinese called Tribute, every sixth year; that from the time they past the frontier, the emperor bore the charge of the embassy; and that the articles of commerce brought from Cathgar, were beautiful slabs of jasper, or variegated marble, and something that appears to be the agate, which we know, from Lord Macartney's account, the Chinese value so highly at the present day. Throughout the whole, the courage, perseverance, address, and patience of Goez, place him in the highest rank of travellers: he was deserted by all his companions but an Armenian boy, of the name of Isaac; and Isaac was so fortunate as to reach Peking, from whence he was sent to Macao, where he obtained a passage to the Portuguese settlements in Malabar. Here he gave the account of his master's expedition and decease; and more particularly mentioned the surprize of Goez, in finding that Cathai was China, and Cambalu, Peking.

Exclusive of the communication between Russia and China, which has been several times interrupted and renewed. This journal of Goez is the only authentic information to be depended on; and it is of the greater importance, as it is a line much farther to the south than the route of the Russian caravans, and actually coincides with the detail given by Ptolemy, and implied by other ancient geo-

emperor bears all their expences as soon as they enter China. In this, then, consists the policy—that if he bears the expence, he has a right to limit the time; and he affects to know of no embassies but from his tributaries. Apply this to Lord Macartney's embassy, and it proves why the ambassador was compelled to depart at a given day, and why his presents were inscribed with the name of Tribute.

The same circumstances are repeated by

Josafa Barbaro (in Ramusio, tom. ii. f. 106.), which he received from a Tartar on the Don, who had passed from Samarkand to China, which was the course of the northern caravans in that age, 1450; and silks, though then made in Persia, formed the principal article of the trade. This Tartar had been at Cambalu; had been introduced to the emperor, and referred to the ministers, &c. &c.

¹² See Isbrandt Ides. Bell. Cox's Russia.

graphers; for Badascian, the Badakshan of Cherif Eddin, is the natural representative of Ptolemy's *Cômêdi*⁵⁴, and Kashgar, the country of his *Casii*. Kashgar is likewise a kingdom of much importance, and a country of great extent; for Goez was employed from sixty to sixty-five days in passing it, and he had still from forty to fifty before he reached Sochien.

VIII. ROUTE OF THE SÊSATÆ FROM ARRACAN TO CHINA.

LET us next examine the ancient accounts, in regard to this and other routes of the same sort. The first author that specifies this intercourse by land is Mela⁵⁵: he says, the Sêres are a nation celebrated for their justice, and have become known to us by their commerce; for they leave their merchandize in the desert⁵⁶, and then retire, till the merchants they deal with have left a price or barter for the amount, which, upon their departure, the Sêres return and take. This assertion is repeated again by Pliny, and confirmed by the *Periplûs*⁵⁷; for that the Sêfataë of that journal are the Tartar tribes which trade with China, cannot be doubted: the extravagances recorded of them, the

⁵⁴ If we may judge by the mountains attributed to both. Timur had always a body of Badacshans in his army, for the purpose of passing straits, climbing mountains, &c. according to Cherif Eddin.

⁵⁵ Lib. iii. c. 7.

⁵⁶ *Commercium . . . rebus in solitudine relictis absens peragit.* Mela, lib. iii. c. 7.

⁵⁷ Ammianus Marcellinus (lib. xxxiii. p. 381. Paris, 1681) has recorded the same character of the Sêres, and the same mode of conducting their commerce with foreigners; but with the addition of a curious particular: that

filk had formerly been confined to the great and rich, but in his time was within the purchase of the common people (*nunc etiam ad usum infimorum sine ulla discretione proficiens*). This circumstance proves, not only the great extension of commerce at Constantinople within thirty years after its foundation, by which the material was obtained, but likewise the proficiency of the manufacturers [perhaps at Tyre and Berytus] in preparing it for the market. The whole passage is worth consulting.

articles⁵⁸ mentioned, throw a shade of obscurity over this transaction; but that a fair⁵⁹ or mart is held for several days, and that the goods are left to the faith of those they deal with, is evident; and that this is a characteristic⁶⁰ of the Chinese trade, from the age of Mela to the establishment of Kiachta, is the uniform testimony of all that mention the commerce. Now that the Sêfatae are a Tartar tribe cannot be questioned, when we find them described in the Periplus; for they are a race of men squat and thick set, flat nosed, and broad faced. They travel with their wives and families, and convey their merchandize enveloped in sacks or mats⁶¹. These are manifestly the Bêfadai, or Bêfatai, of Ptolemy, described under the same attri-

⁵⁸ The malá bathrum is attributed to the Sêfatai by the Periplus; and though it is much more natural that the Tartars should obtain betel from the Chinese, than the contrary (and so Vossius renders it), yet that the Sêfatai and Bêfadai are the same, cannot be doubted. The words of the Periplus are, Σύματα κολοβοί, καὶ σφόδρα πλατυπρόσωποι, σιμοὶ ἐς τέλος. Of Ptolemy, Κολοβοί, πλατεῖς, καὶ δασύς, καὶ πλατυπρόσωποι. Λινοὶ μὲν τὰς χροάς· ὑπὲρ δὲ τὴν Κιρράδιαν ἐν ᾗ φασὶ γίνεσθαι τὸ κάλλιστον Μαλά-βαθρον. Now the Kirrhadii of Ptolemy are at the eastern mouth of the Ganges, and there the betel might grow, or be procurable; and if the Bêfadai were seated on the north of that country, they would be in Lassa or Thibet, both of which are Tartar countries, and might well be engaged in conducting this traffic between China and Bengal, or perhaps Arracan. But whatever obscurity there may be in this, it appears evident that Ptolemy and the Periplus mean the same people; and, by the similarity of expression, copied from the same authority. It ought likewise to be observed, that Σιμοὶ ἐς τέλος, as it now stands in the Periplus, is a reading of Vossius for σιμοί,

or σιμοί, or something unintelligible in the first copy of the Periplus. Upon the whole, therefore, if we interpret the Periplus by Ptolemy, and conclude that the Sêfatai brought the betel from Bengal or Arracan, making them the same people as the Bêfadai, we have a consistent account of this article reaching the northern provinces of China, as it reached the southern by sea. That the betel should be procurable in Arracan, is reasonable; for it grows abundantly in Ava. Symes's Embassy, p. 255. See also Dr. Buchanan's Account of the Burmas, Af. Researches, vol. v. p. 219.

⁵⁹ Vossius reads ὀράζουσιν for ἀρπάζουσιν.

⁶⁰ Coetum reliquorum mortalium fugiunt, commercia expectant. Plin. vi. 20. Expectant?

⁶¹ Ἐν ταρπύλαις, in sirpeis; mats made of rushes, bags, or sacks. So the Scholiast on Dionysius, 757. Ὅς δὲ Σῆρες πολλοὺς ἔτιος ὑποκρίνονται, τὸ τίμημα ἐπιγράφοντες τοῖς ΣΑΚΚΟΙΣ καὶ ὁ ἔμπορος ἐξ ἐπιγραφῶν ποιῆται τὰς ἀποκρίσεις.

The Sêres, who are the sellers, make the first proposal, by marking the price on their sacks; and the buyer, according to the mark, fixes his price in return.

butes,

butes, and almost in the same words, with the addition, that they are of a white complexion⁶²; and that the malábathron, or betel, is brought by them from the country of the Kirrhádæ, at the eastern mouth of the Ganges.

Here, therefore, we may discover another line of intercourse between India and China, which passed the mountains of Thibet⁶³, and joined the route which came from Cabul and Balk, or reached the southern provinces of that great empire by a shorter course; and this, perhaps, may explain a dubious⁶⁴ passage of the Periplus already noticed, and may instruct us how the silk of China came down the Ganges, or the Brama putra into Bengal, and from thence passed by sea to the coasts of Coromandel and Malabar.

The northern communication with China is intimated likewise by Dionysius, who, after leaving the Oxus, the Iaxartes, and the Caspian Sea, on his progress eastward, mentions in order, the Sacæ, Tocharoi, the Phrooroi, and then the Sères. If he had taken these regularly, the Tocharoi would have been the Tartars of what is still called Tocharistan⁶⁵, the Sacæ would be the Usbecks, and Phrooroi (possibly the Greek word *Φρούροι*⁶⁶, as an appellative, and not a proper name) expresses the guard or garrison at the Stone Tower in the country of the Sacæ, or the station in the territory of the Casii, from whence the caravan proceeded to the Sères. I mention these circumstances not so much on account of the geography, for

⁶² Ptolemy, p. 177.

⁶³ The same intercourse between Thibet and China is mentioned at a mart called Silling or Sinning, by Turner, p. 372. Embassy.—Rhubarb is noticed, p. 294.; and the white quartz grit-stone, for Porcelane, p. 390.

The trade between China and Ava is carried on at Jee. Symes's Embassy, p. 325.

⁶⁴ See supra, p. 478.

⁶⁵ The Turkistan of the Arabs.

⁶⁶ But Pliny writes Thuri, *Θούροι*. Salm. 989.

we are dealing with a poet, as for the purpose of introducing his beautiful description of the silks woven by the Sêres :

... Σηρῶν,

Ὅτε βόας μὲν ἀναίνονται, καὶ ἴφια μῆλα,

Αἰόλα δὲ ζαίνοντες ἐρήμῃς ἀνθεα γαίης,

Ἐμματα τεύχεσιν πολυδαίδαλα, τιμήεντα,

Εἰδόμενα χροῖῃ λειμωνίδος ἀνθεσι πρόιης·

Κείνοις ἔτι κεν ἔργον ἀραχναίων ἐρίσειεν.

Nor flocks, nor herds, the distant Sêres tend ;

But from the flow'rs that in the desert bloom,

Tinctur'd with every varying hue, they cull

The glossy down, and card⁶⁷ it for the loom.

Hence is their many-coloured texture wrought

Precious, and bright in radiance, that transcends

The mingled beauties of th' enamel'd mead.

A web so perfect, delicate, and fine,

Arachne and Arachne's progeny

Might emulate in vain⁶⁸.

⁶⁷ Virgil supposed the Sêres to card their silk from leaves :

Velleraque ut foliis depectunt tenuia Seres.

Strabo, who does not mention the Seres, still notices Serica, or silk : "Εκ τινων φλοιῶν ζαινομένης βύσσε. P. 693. Byssus, or a fine material carded from the bark of a particular tree.

Pausanias meant to correct them both, when he wrote οἱ μίτοι δὲ ἀφ' ὧν τὰς ἐσθῆτας ποιοῦσιν οἱ Σῆρες ἀπὸ ἐδενῶς φλοιῶ, τρόπον δὲ ἑτερον γίνονται τοιοῦνδε, "Εστιν ἐν τῇ γῇ ζυφίον σφίσιν ὃν Σῆρα καλεῖσιν οἱ Ἕλληνες.

The thread from which the Sêres form their web, is not from any kind of bark, but is obtained in a different way : they have in their country a spinning insect, which the Greeks call Seer. 11 Eliac. in fine.

But Pausanias, though he had learnt that it was a worm, had not learnt more : he supposed it to live five years, and that it fed on green haulm. The workmen of Tyre and Berýtus wrought the metaxa, or organzine, imported long before the perfect nature of the animal or the material was known. The true history and management of it were not complete, till the monks obtained it for Justinian.

⁶⁸ In honorem Deorum (coronas) *versicolores* veste Sericâ, unguentis madidas. Hunc habet novissime exitum luxuria fœminarum. Plin. lib. xxi. c. 8. Hard.

We observe here, not only the light-flowered silks, but the introduction of them into religious ceremonies, as early as the time of Pliny.

IX. INTERCOURSE BY SEA—MELA, RAJAH OF PLINY, COSMAS
INDICOPLEUSTES.

I HAVE dwelt more particularly on the silk of China, because it is as essentially the distinguished produce of that country, as the pepper of Malabar, the muslins of Guzerat, the myrrh and frankincense of Arabia, are characteristics of these several countries; and I am very anxious to prove the communication with China by land, because it will presently appear that there was another line of intercourse by sea. If, therefore, the access both ways can be established, China alone, whether denominated Thina, Sinæ, or Sêres, must be the country intended; for no other can be approached by these two different ways; and these two, opened from the earliest accounts we have in history down to the present day, denote exclusively the appropriate character of that vast empire, as these circumstances can be applicable to no other. The establishment of this truth will afford a ready solution of the difficulty which arises from the position of the Sinæ in Ptolemy: they cannot be in China; and if we accede to the opinion of M. Gosselin, that they are in Siam, we must conclude that Ptolemy, who gives so imperfect an account of the voyage to Cattigara, knew nothing of a farther intercourse by sea with the Sêres, and that it was unknown in his age.

Mela, however, is said to assert it, if we may believe the interpretation of Vossius; but in Mela nothing more appears, than that from Colis to Cudum the coast is straight. His Colis is the southern point of India; and Cudum, according to Vossius⁶⁹, implies the Cudutæ of Ptolemy, who are the nation nearest to the Sêres. The

⁶⁹ In Melam, Lib. iii. c. 7.

accuracy of geography we are not concerned with here, but the assertion; and what is meant may be seen by consulting M. Gosselin's ⁷⁰ Map of Eratosthenes. But this evidence is dubious and obscure, and conduces nothing to the proof of any voyage performed. Little more satisfaction shall we receive from Pliny or the Periplus; for the father of the Rajah, who came upon the embassy from Ceylon to Rome in the reign of Claudius, did not reach the Sêres by sea, but passed from India over the mountain Emôdus, the Himmalu of the Hindoos, and thence by an eastern route arrived at the country of Sêres, with whom he traded under the same restrictions as the merchants from Persia and Europe, or the Sêsatæ mentioned by the Periplus.

Cosmas, as far as I can discover, is the first author that fully asserts the intercourse by sea between India and China; for he mentions that the Tzinistæ brought to Ceylon silk, aloes, cloves, and sandal-wood. The articles themselves are the specific exports of China still; and that the Tzinistæ⁷¹ are Chinese, can not be questioned; for he expressly mentions their country, not merely as exporting, but producing silk; and specifies the distance from it by land as much shorter, compared with the voyage by sea. This circumstance can accord with no other country, at the extremity of the east, but China; for no other country is so situated as to have this double communication, consequently his Tzinistæ are Chinese: they have the same attributes as the Sêres—they are the same people; first, by the means of approach; and, secondly, because

⁷⁰ *Geographie des Grecs.*

⁷¹ Vossius supposes the Siamese to have the temples in Ava, Pegu, and Siam. Still the orthography of Tzinistæ is so essentially settled in Ceylon; and a temple found in Chinese, that it precludes all doubt. See *As. Researches*, vol. vi. p. 438.

they

they are surrounded by the ocean on the east, and because that beyond them there is no navigation⁷² or habitation. This is the one point, above all others, which I have laboured to establish by this disquisition; and though I obtain not my proof till the sixth century⁷³, the evidence is consistent in all its parts, and complete. The inference is justifiable, that the same intercourse existed by sea, as well as by land, in ages much earlier, though the account had not reached Europe, and though the proof is defective. It is in vain that I have searched for any intelligence of this sort previous to Ptolemy, though I was very desirous to find it, and prepossessed in favour of its existence.

Two passages in the Periplûs had almost induced me to press the author into the service, and compel him to bear testimony to the fact. The first is, where he mentions the difficulty of going to, or coming from China; the second, where he notices that the malá-bathrum is brought from Thina by those who prepare it. But, upon a scrupulous review of these passages, I am persuaded that he considers only the communication by means of the Indus or the Ganges; and that though he allows an exterior sea on the east of China, the last place that a voyage by sea extended to, in his idea, was the Golden Chersonese. Had I formed a system, the want of such an evidence would have been a vexatious disappointment; and the more so, as my first contemplation of his language had persuaded me that I could apply it to this proof.

⁷² Περαιτέρω δὲ τῆς Τζινίτζας οὐδὲ πλέεττι οὐδὲ δεικνύται. Cosmas, p. 138. Montfaucon, Nov. Col. Patrum, tom. ii.

⁷³ The date of Cosmas's work is 547, according to Montfaucon, Prefat. cap. i.

X. GOLDEN CHERSONESE, VOYAGE FROM CEYLON THITHER,
COAST OF COROMANDEL, MASULIPATAM, GANGES, ARRA-
CAN, AVA, SIAM, CATTIGARA.

THE next point to be considered is, how it should happen that Ptolemy should be unacquainted with the intercourse between the Golden Chersonese and China; that his information should terminate with the Sinæ and Cattigara, which, to all appearance, are on the western coast of Siam. But he acquaints us candidly himself, that though Marinus⁷⁴ had heard of the journey performed by the agents of Maes through Scythia to the Sères, he had no account of any one who had made the voyage by sea from the Golden Chersonese to Cattigara: all that he knew therefore, even of Cattigara, was from report; and much less could he know of all that was beyond it, that is, of all that was to the east of the Straits of Malacca.

The first view of his map would naturally suggest the idea which M. d'Anville has embraced: it looks like the termination of the peninsula of Malacca, and rises up again northward to his Sinus Magnus, as if we were entering the bay of Siam⁷⁵, the sea of Cochin-china, and China. But when we observe his Sinæ placed on the same parallel with Malacca, and his Cattigara carried down eight degrees⁷⁶ to the south, we see at once that both must be placed on a coast that has no existence, except in that vast imaginary

⁷⁴ Τὴ δὲ ἀπὸ τῆς Χρυσῆς Χερσονήσου ἐπὶ τὰ Κατ-
τίγαρα διάπλετο τὸν ταχίστον οὗ Μαρίνου ἐκ ἐκτίθε-
ται. Lib. i. c. 14.

⁷⁵ Siam extends, or did formerly extend,
across the peninsula; and the great bay, after
passing the Straits of Sincapura, is therefore
called the Bay of Siam.

⁷⁶ This is one of the circumstances that does
not accord with the positions of M. Gosselin,
assigned to Thina and Cattigara; but the de-
ficiency of information requires great allow-
ance. Perhaps it was not necessary to fix
Cattigara at Merghi.

continent which he has brought round the whole Southern Ocean, from Africa, in longitude 80° , to Cattigara, in 180° .

It is this circumstance which compels us, notwithstanding the appearance of his map, to coincide with the opinion of Vossius and M. Gosselin, that in reality he does not pass the Straits of Malacca and Sincapura; but that the account, which he had from report, carried him no farther than the western coast of Siam. On this head it has been already noticed, that Mercator, who had no system to maintain, makes the coast of the Sinæ front to the west, and this the latitudes and account of Ptolemy require; but if we place the Sinæ, with d'Anville, in Cochin-china, the face of the coast is reversed—it fronts to the east, or south-east, and makes Ptolemy in contradiction with himself.

Let us then suppose, either that the personal knowledge of the Greeks ended with Ceylon, and that all beyond was obtained by inquiry of the natives, and the merchants who came from the East; or else, let us assume that some few Greeks had penetrated farther. In either case, we may discover that the information was defective, both from the language of the geographers, and the construction of their maps; still we can follow their authority with a sufficient degree of consistency, till we arrive at the Golden Chersonese; beyond that, though the reports continued of the Sères and other distant regions, the fabulous prevailed over the reality. It is not saying too much, if we conclude all the ancients under deception in this respect, without exception—it is not attributing too much to Marco Polo, when we say, that he was the first European who passed by sea from China to India, and thence to Europe; or at least, the first whose writings testify that his account of this voyage,
and

and this empire, is not founded on report, but personal knowledge and experience.

Is it meant then to assert, that the voyage was never performed previous to his time? Certainly not. He lived in the thirteenth century; and almost four centuries before that period, we know that the Arabs traded regularly from Siraf, in the gulph of Persia to China; and that the Chinese came to Malabar, perhaps to Persia and Arabia. But this Arabian account, though we have it now, reached not Europe previous to Marco Polo; and if this was true four hundred years before his time, though we were still ignorant of it in Europe, it is just, by analogy, to conclude, that the same voyage was performed as many ages antecedent to the Arabian account, as that is previous to Marco Polo. Cosmas⁷⁷ asserts it in the sixth century; and the whole contributes to establish the general admission of the fact by inference, though the proof is defective.

The first error in this respect commences at Ceylon, the magnitude of which is irreconcilable with its actual extent; but as Mela asserts, that no one had ever circumnavigated⁷⁸ it, it is natural to

⁷⁷ Ἡ Τζινίστα τὴν μεταξὺν Θάλλυσαν, ἥς ἐνδοτέρῳ ἐκ τῆς ἑτέρας χώρας ὁ Ὀκεανὸς γὰρ αὐτὴν κυκλοῖ κατὰ ἀνατολὰς.

Tzinista, which produces silk, beyond which there is no country, for the ocean encircles it on the east. This assertion proves, first, the silk organzine of China; secondly, that China is the same as the Sères of Mela and Pliny [primi hominum qui noscuntur]; and thirdly, that Tzinista is not the Thina of Ptolemy; for his Thina is encircled by the ocean on the west. And again,

Ταπροβάνη . . . ἀπὸ τῶν ἐνδοτέρων, λέγουσι δὲ τὰς Τζινίστας, δίδεται μεταξὺν, ἀλὸν καρυοφυλλον, Τζανδάνη καὶ ὅσα κατὰ χώραν ἔσσι.

"Taprobana, or Seliediba, receives from

"the countries farther east, particularly from
"the Chinese, silk, thread, aloes, cloves, sandal-wood, and whatsoever else is the produce of the country." We learn by this, that the cloves of the Moluccas reached Ceylon through the medium of China; from whence it follows, that the Chinese traded with the Moluccas in that age on the one hand, and with Ceylon on the other. Cosmas, Montfaucon, p. 337.

This account is in harmony with the account of the modern trade of the Chinese, by Martini. P. 120. & seq.

⁷⁸ Nec quisquam circummeasse traditur. Mela, lib. iii. c. 7.

amplify all that is unknown; and the magnificent terms in which this island is always spoken of in India, might naturally contribute to the deception. Its distance also from the continent⁷⁹ is another error, which Vossius attempts to reconcile by supposing that the measure is taken from Coulam, or Covalam, to Point du Galle, because Pliny says, the harbour is on the southern side. Pliny likewise, as well as Mela, supposes the circumnavigation unattempted; and describes the passage through the straits of Manar with incorrectness indeed, but not with less difficulty than Barthema passed them, almost fifteen hundred years later, when they still continued the usual⁸⁰ passage for travellers and merchants.

But from Ceylon, notwithstanding the mistake relative to the position of the coast, we can proceed with Ptolemy (who had obtained the native appellations of the country as wonderfully here as every where else), without hesitation to the Ganges; for we find

- Paralia Sore-tanum = the Coast of Coro-mandel.
- Nigama⁸¹ - - = Negapatam? D'Anville.
- Chaberis River - = the Cavery in Tanjour.
- Arcati Regia - = Arcot.
- Maliarpha - - = Meliapoor, St. Thomè, near Madras.
- Mesolia⁸² - - = Masulipatam.

In the district distinguished by this name we are to fix the point or cape, where those who left the coast took their departure to cross the bay of Bengal, and make their passage to the Golden Chersonese. This point, which has no name in Ptolemy, M. d'Anville has, with

⁷⁹ Twenty days in the ships of the country, seven in the vessels from Egypt. Both distances are in excess; for, from Covalam to Point du Galle is little more than 200 miles.

⁸⁰ Barthema, lib. vi. c. 2.

⁸¹ The position of Negapatam answers; but whether it is ancient, may be questioned.

⁸² Written Masalia in the Periplus.

great propriety, fixed at Gordaware, a cape near the mouth of the Godavery, and from which it seems to take its name.

The whole of this course, from Ceylon to Mesolia, is in correspondence with the Periplus, and apparently with the account of the Arabs⁸³ in Renaudot. In all three, there is no appearance of a direct passage by the monsoon from Ceylon to the Golden Chersonese; and if Ptolemy's traders passed from the Godavery at once to the opposite shore, it is the boldest⁸⁴ adventure of the whole.

Concerning the Ganges there is no difference; but the Kirrhadae of the Periplus are west of the Ganges, and those of Ptolemy to the eastward. In this there can be little doubt that Ptolemy is the more correct; and unless a name deceives me, I find in his Kirrhadae the Kadrange of the Arabs, and the Arracan of the moderns.

We are now to enter upon the Great Peninsula, comprehending provinces distinguished by the titles of Gold, Silver, Brass, and the Golden Chersonese, off which lies an island of Barley, with its capital called the Silver City. The mere assemblage of these names is sufficient to prove, that they are fictitious and imaginary; and received, as they must have been, by report, they must be attributed either to the vain glory or caprice of the reporters, and not to the invention of the Greeks. Yet even here, Ptolemy preserves his privilege in recording some names that cannot be mistaken, and which afford us the means of ascertaining the country we are to enter on, however deficient we may be in particulars.

⁸³ The Arabs first mention the island of Najabulus, and then Betuma, or Meliapor; if, therefore, Najabulus be the Nicobars, they crossed half the bay of Bengal, and returned to the coast of Coromandel. D'Anville supposes Nichobar and Najabal equivalent.

⁸⁴ Scrupulous attention to the monsoons is necessary for crossing the bay of Bengal, as I learn from the Oriental Navigator, and likewise to the parallel on which it is to be passed.

How little of the detail of this coast can be depended on, may be seen by comparing a few of the names with the positions assigned them by d'Anville and Gossellin :

PTOLEMY.	D'ANVILLE.	GOSSELLIN.
Sada.	Sedoa.	Rajoo.
Berabona.	Barabon.	
Temala.	Cape Negrais.	Botermango.
Berobè.	Mergui,	Barabon.
Aurea Chersonesus.	Peninsula of Malacca.	Ava, and Daona. River of Ava.
Magnum Promontorium.	Cape Romania.	Pointe de Bragu.
Zaba.	Sincapura.	Bragu.
Magnus Sinus.	Gulph of Siam.	Martaban.
Sêrus Fluvius.	Menam. River of Siam.	River of Pegu.
Sinæ.	Cochin China.	Siam. Tanaferim.

Now, though I am convinced with Gossellin, that the Great Bay, the River Serus, and the Sinæ, are all west of the Straits of Malacca, and persuaded that the Sinæ are in Siam, it is not necessary to accede to his opinion, that Sinæ⁸⁵ Metropolis is new in respect to Ptolemy, or that Ptolemy knew nothing of Java; for Iabadioo, according to Greek pronunciation, is strictly Java-diu, the Island of Java. Ptolemy's position of this island is of no importance; for he has hardly one island correctly placed from Africa to Siam, and his ignorance of its extent is no more extraordinary than his augmentation of Ceylon. But the surprize is, that he should have obtained the name of Java; and whether we attribute this to the island now called Java, or to Sumatra, which M. Polo calls Java Minor, the appellation itself may well excite our astonishment. There is, how-

⁸⁵ M. Gossellin's opinion does not seem again to Thina of Eratosthenes, compared founded on the distinction between Sinæ and with the Thina or Sinæ Metropolis of Ptolemy. Sera Metropolis. If it were so, we must refer

ever, only one point in Ptolemy which can cause any doubt respecting the position of the Sinæ in Siam; which is, the mention of Ta-mala and Malai-oo Kôlon; for however the first may be questioned, the second so positively intimates the country of the Malays or Malacca, that we cannot help attending to the connection. The placing of this likewise in the neighbourhood of the Pirates, which has been the character of the Malays in all ages, contributes to the same supposition. I do not mention these circumstances for the purpose of invalidating M. Gosselin's system, for upon the whole I accede to it; but still the question is not cleared of all its difficulties; and it seems highly probable, that as Marinus had no evidence from any one who had performed the voyage either to the Golden Chersonese or Cattigara, that Ptolemy had no information which was consistent to direct him.

That the voyage itself was performed by native merchants may nevertheless be admitted, not only as it may be collected from the accounts of later ages, but as it is asserted by Cosmas. Desirous as I have been to find an earlier testimony of this, I have not succeeded; for though the Periplus mentions the very large⁸⁶ vessels fitted out on the coast of Coromandel, the limit of their progress was Khrusè, and short of Ptolemy's Cattigara. The remainder of the course to China does not seem to have reached Europe, even by report⁸⁷.

What

⁸⁶ Kolandiophonta. See Capt. Wilford's Chronology of the Hindoos, As. Researches, vol. v. p. 283. where he says, this expression means *Coilan boats or ships*.

⁸⁷ At Tarnassari, as Barthema writes, which is nearly in the same situation as the point from whence the fleets sailed, according to Ptolemy (Grynæus, p. 227. lib. vi. c. 12.).

His est varius multiplexque navigantium usus, fulcant alii maria *velocibus* complanatis admodum, quæ altiores aquas minime exposcunt; alii navigant *Liburnicis* geminam proram habentibus, geminumque malum absque tecto; est et aliud *onerariae* navis genus quo enomina onera comportantur, nam ferunt aliæ ex memoratis onerariis navibus supra mille mercium dolia.

What then is the Golden Chersonese? a question easy to resolve generally, but very difficult to apply in its result to the different authors who have mentioned it. It is the most distant country east, according to Dionysius⁸⁸ and the *Periplus*: it is called an island by both; an island of the ocean, by the latter, and placed adjoining to the eastern mouth of the Ganges. According to Mela, it is an island at the promontory Tamos. If Tamos⁸⁹ be the Tamala of Ptolemy, that cape must be either in Ava or Pegu, as we adopt the system of d'Anville or Gossellin; and if it must be an island⁹⁰, we might place it at the mouth of the Ava river, which passes through Pegu to the sea, and forms many islands at its different mouths. Here also Gossellin fixes his Golden Chersonese, and the river Chrysoana; but Ptolemy has two provinces—one of gold, and one of silver—before he arrives at the Chersonese; and if his Kirrhadia be Arracan, these provinces must be on the western coast of Ava, above the Golden Chersonese of his arrangement. All this mention of gold would surely direct us to some conclusion, from the general nature of the country; and it does seem very probable, that both

dolia. Imponunt his vastioribus navigiis cymbas, navesque acturias in urbem Malacha nomine deferendas, quibus captum proficiscuntur aromata.

If Barthema had seen the *Periplus*, he could not have employed language more conformable to it; for we have here the light vessels, which answer to the *sangara* and *monoxyla*; and others of a thousand tons, corresponding with the *kolandiophonta* of our author: we have the same trade from Coromandel to Malacca, and the cargo obtained there consists of spices and silk. P. 232.

⁸⁸ Lib. 589.

⁸⁹ Tamos promontorium est quod Taurus attollit. Mela, iii. 7.

If Taurus were the only difficulty here, we could frame a solution of it; for Taurus is found in China and at the Indus, and this might be a chain branching from it in Ava, according to the idea of Mela.

But that Tamos is Tamala, or something near it, is evident; for it is added, *ad Tamum insula est Chryse. . . . Aurei soli . . . aut ex re nomen, aut ex vocabulo ficta fabula est.* Ibid.

⁹⁰ An island, or a chersonese, are the same in Arabic, and from Arabs the Greeks possibly had their intelligence.

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the wealth and ostentatious display of it in Ava, Pegu, and Siam, may well have given rise to the report which attributed so large a share of the precious metals to this great peninsula. The glory of Pegu and Siam has sunk under the ascendant of Ava; but in all these courts, the exhibition of gold in their temples, public buildings, galleys, habits, and decorations of every kind was, while they existed, the summit of Oriental pomp, as it continues in Ava⁹¹ to the present time; and if we should chuse to carry the Silver Metropolis of Iabadio⁹² to Sumatra, the splendour of Acheen, in its better days, would bear its proportion to the gold of Ava.

In this view it is natural to accede to the position of the Golden Chersonese by Gosselin; and if this be granted, his Sinæ and Cattigara in Siam follow of course. Some difficulties in the way of this conclusion have been already noticed, and a greater is, that Ptolemy should be ignorant of the voyage to the Sêres; but doubtless he went as far as he was authorized by the information he had obtained. I feel a regret in acknowledging this, because I should rather have received the confirmation of this great geographer on the subject, than build it on inference or analogy. The evidence of Cosmas is all that remains, to prove that there was a communication by sea between India and China; and this is the point material to insist on, because the intercourse through Tartary, on the north, is indisputable; and if both these means of approach be established, the country of the Sêres must be China; for these circumstances cannot be appropriate to any other country at the extremity of the East.

⁹¹ See Symes's Embassy to Ava, pp. 186. 388. 413. 424. & passim.

⁹² Ptolemy has dios or diu in another form applied to a neighbouring group, Saba-dibæ,

which is Sava-dive in the mouth of a Greek, fluctuating between the two letters like Selen-dib and Selen-dive.

XI. LONGITUDES AND LATITUDES OF PTOLEMY, HOWEVER IN EXCESS, STILL THE CAUSE OF MODERN DISCOVERY; NAVIGATION TOWARDS THE WEST FROM SPAIN—ROGER BACON, COLUMBUS, MAP OF PTOLEMY; EULOGY OF PTOLEMY.

IN the whole of the attempt in which I have been engaged, from the voyage of Nearchus to the close of the present work, it has been my endeavour to trace the progress of discovery, as carried on by the Greeks and Romans, from the time of Alexander to the reign of Justinian⁹³; and the only object of consideration remaining is, the extent of their knowledge in Longitude and Latitude. The excess of longitude in Ptolemy is the subject of universal complaint; but this excess arises, in the first instance, from his assumption of five hundred stadia for a degree of a great circle; and secondly, from the vague method of calculating distances, by the estimate of travellers and merchants, and the number of days employed in their journeys by land, or voyages by sea. Respecting this last source of error, Ptolemy was upon his guard; for he repeatedly corrects the excess resulting from the calculation of days by Marinus, and reduces it sometimes a third, and sometimes an half, or even more. After all, however, we have an hundred and eighty degrees from the Fortunate Islands to Cattigara, upon a space that in reality occupies less than an hundred and twenty. So that the ancients, instead of knowing one-half of the globe which we inhabit, in fact knew only one third: still they knew that the earth was a globe; and one cause of their error, among others, perhaps was, that they had a desire to cover as much of it as they could.

⁹³ The date of Cosmas, anno 547, is the 21st of Justinian.

The error in latitude⁹⁴, on the contrary, was so small, that in a view of this kind it is not worth regarding; for if we take it from the parallel through Thulé to the parallel through the Cinnamon Country, at eighty degrees, the difference from the truth is not more than six or seven degrees upon the whole, and with this we have little concern.

But upon the excess of longitude depended, ultimately perhaps, the grand problem of circumnavigating the globe, and the origin of modern discovery; for as Strabo⁹⁵ had said, that nothing obstructed the passage from Spain to India by a westerly course, but the immensity of the Atlantic Ocean; and as all the early navigators of Portugal had some acquaintance with Ptolemy, so from the first moment that the idea arose that a passage to India, or a circumnavigation, was possible, the account of Ptolemy lessened the difficulty by sixty degrees. When Columbus, therefore, launched into

⁹⁴ The latitude of Thulé is 64° north, in Ptolemy, and the parallel through the Cinnamon Country 16° 24' south; that is, 80° 24' upon the whole.

⁹⁵ Aristotle seems the author of this supposition, as well as of most other things that are extraordinary in the knowledge of the ancients. See Bochart, Phaleg. 169.

Συνοπτειν τὸν περὶ τὰς Ἡρακλείας σήλας τόπον τῷ περὶ τὴν Ἰνδικήν.

“The parts about the Pillars of Hercules join to those about India.” This is a nearer approach still; but both suppositions arise from the contemplation of the earth as a sphere.—Aristotle has also preserved the opinion of the Pythagoreans, who made the Sun the centre of our system, with the Earth and the other planets revolving round it, which is the hypothesis adopted by Copernicus and established by Newton. Strabo likewise, who left the

phenomena of the heavens, and the form of the earth, to the mathematicians, still thought the earth a sphere, and describes our system agreeable to that which was afterwards adopted by Ptolemy; but he adds the idea of gravitation in a most singular manner: Σφαιροειδὴς μὲν ὁ Κόσμος καὶ ὁ Οὐρανός. Ἡ ΡΟΠΗ δ' ἐπὶ τὸ μέσον τῶν βαρέων ὁ δ' Οὐρανὸς περιφέρεται περὶ τε αὐτὴν καὶ περὶ τὸν ἄξονα, ἀπ' ἀνατολῆς ἐπὶ δύσιν. Lib. ii. 110.—“The earth and the heaven are both spherical; but the tendency is to the centre of gravity. The heaven is carried round itself, and round its axis from east to west.”—I barely suggest the extent of ancient knowledge on these questions; those who wish to gratify their curiosity may consult Stobæus, tom. ii. c. 25. ed. Heeren, Gotting. 1792, 1794; and Diogenes Laertius in Anaximander, Pythagoras, and Zeno, lib. vii. sect. 155.

the Atlantic Ocean, he calculated upon sixty degrees less than the real distance from Spain to India⁹⁶—a space equal to three-fourths of the Pacific Ocean; and when his course to India was stopped by the intervention of America, however his companions had been driven to despair by the length of the voyage, Columbus certainly met with land before he expected it, or at least before any estimate of his longitude could authorize the expectation.

The prevalent opinion, in the middle centuries, of a passage from Spain to India, is preserved in Roger Bacon; and his opinion is more worthy of regard, because his system is nearest⁹⁷ to the actual prosecution of the attempt. He then informs us, that according to Aristotle there was but a small space of sea between the western coast of Spain and the eastern coast of India; and that Seneca mentions that this sea may be passed in a few days, with a favourable wind. Aristotle⁹⁸, he adds, had his knowledge of the East from Alexander; and Seneca, his knowledge of the South from Nero, who sent his centurions into Ethiopia. He might also have introduced the celebrated prophecy of Seneca the poet:

Venient annis sæcula feris,
Quibus oceanus vincula rerum
Laxet, et ingens pateat tellus,
Tethysque novos detegat orbes,
Nec sit terris ultima Thule.

Medea, l. 375.

A time will come, in ages now remote,
When the vast barrier by the ocean form'd
May yield a passage; when new continents,
And other worlds, beyond the sea's expanse,
May be explor'd; when Thulé's distant shores
May not be deem'd the last abode of man.

⁹⁶ India, in this sense, means the first land he would meet with coming from the west, which would in reality have been China.

⁹⁷ Bacon died in 1294.

⁹⁸ Rogeri Bacon opus majus, p. 183. He cites Aristotle, de Cælo et Mundo; and Seneca, in his fifth book, Nat. Quæst.

The Nuremberg Globe, as it is called, now published in Pigafetta's Voyage, favours the same opinion; in which the farthest isle to the west is named Antille, the existence of which was dubious, and yet the supposition of it was sufficient to make Columbus think he had reached the Antilles when he discovered the first island in America. This discovery is the more extraordinary, as it was the effect of design, and not accident⁹⁹; when accident would have produced the same effect not ten years later; for it was accident alone that carried Cabral to Brazil in 1500; and the arrival at Brazil would as infallibly have been prosecuted to the exploration of the whole continent, as the achievement of Columbus.

But there is a circumstance still more singular, which attaches to this idea of a passage from Spain to India; for I have in my possession, by favour of Lord Macartney, a copy of the map in the Doge's palace at Venice, drawn up for the elucidation of Marco Polo's travels, or at least certainly constructed before the discovery of America; for in this map there is nothing between the eastern coast of China and the western coast of Spain but sea; and though the longitude is not marked on it, we may form an estimate by comparing this space with others in the same sheet, which are known. Now this space measured by the compasses gives, as nearly as may be, the same distance from China to Spain, as from Ceylon to Malacca; that is, ten degrees, instead of an hundred and fifty; or less than seven hundred miles, instead of upwards of ten thousand. I cannot assert that this is the genuine production of M. Polo¹⁰⁰: it has

⁹⁹ At least only so far accident, as meeting with America instead of India. taken from an older one drawn up for that purpose, full of matter of a later date:

¹⁰⁰ The map, as it now appears, is very ill accommodated to M. Polo's travels, and if For, first, it carries him from China to Bengal by land, whereas he went by sea.

has additions which belong not to his age, and contains much that he did not know; but it is evidently composed and adapted to his travels, and as evidently, more ancient than the discovery of America. We have in it, therefore, a guide to form our opinion of the geographers of that age, and the notions they had conceived of the unknown parts of the world; we have likewise the origin of those conclusions which led Columbus to attempt a westerly passage to India; in effecting this, he was only disappointed by finding a continent in his way, which has caused a revolution in the commerce of the whole world, and which may still cause other revolutions, incalculable in their effect, magnitude, and importance.

But if it is fruitless to look forward to future revolutions; we may at least reverse our attention, and direct it to those great masters in the science, who first taught mankind to measure the surface of the earth by a reference to the phenomena of the heavens—to Eratosthenes—to Hipparchus; and, above all, to Ptolemy, who first established this system on a basis so firm, that as long as there shall be travellers and navigators in the world, it can never be shaken. The science, however advanced, is still only in a state of progression: it is still conducted upon his principles, and is in reality nothing more than a correction of his errors. Those errors were unavoidable, if we consider the difficulty of all first attempts, and the

2. It delineates the Great Wall, which he never mentions.

3. It gives the Molucca Islands in detail.

And, 4. It describes the course of a Venetian ship, east of the Moluccas, in 1550, that is, almost sixty years after the discovery of America; and on that occasion mentions the Straits of Magellan. How this strange incon-

sistency should accord with that part of the map which gives no continent between China and Spain, is totally inexplicable; but that we cannot be mistaken in calling it Spain, is self-evident; for we have the river [Guadil] Quivir, Corunna, and the Sierra Nevada, or Snowy Mountains of Andalusia, all in their proper places.

flender

flender means of information in that age, compared with the advantages we possess at the present hour. But even his failures have conduced to the attainment of truth; and whatever reflections we may now cast on an excess of sixty degrees upon the measurement of an hundred and twenty, we must acknowledge, with d'Anville, that this, which was the greatest of his errors, proved eventually¹⁰¹ the efficient cause which led to the greatest discovery of the moderns.

¹⁰¹ La plus grande des erreurs dans la géographie de Ptolémée, a conduit à la plus grand des decouverts. Antiq. de l'Inde, p. 188.

DISSERTATION II.

ON

EZEKIEL, c. XXVII.

THE produce of India or Arabia, mentioned in the Scriptures,
consists of

Cinnamon¹.

Kafia.

Sweet Calamus, Calamus aromaticus? or, Calamus odoratus?

Staëtè, or Gum.

O'nycha, or Skekeleth, a black odoriferous shell².

Gálbanum, a gum or resin.

Aloes.

Myrrh.

Frankincense.

Of these, cinnamon and kafia are the only articles which can be attributed specifically to India; and these, with all the others, were brought originally through Arabia into Egypt, Judêa, Phênicia, and Syria; and from these countries distributed round all the coasts of the Mediterranean. How cinnamon and kafia might have reached Arabia, by crossing no more sea than the breadth of the Persian

¹ See Exodus, xxx. 23. et seq. Psalm xlv.
² Parkhurst in voce.
8. Ezek. xxvii. 19.

Gulph; or how they might have been conveyed to the coast of Africa, the reputed Cinnamon Country of the ancients, has already been sufficiently detailed; it remains now to be shewn, that Tyre possessed the principal share of this trade, from the earliest mention of that city in history, till its destruction by Alexander, and the foundation of Alexandria.

Tyre, in fact, enjoyed this commerce almost exclusively, except during the reign of Solomon, when Hiram found it his interest to unite with that monarch, who was sovereign of Idumêa, in order to secure a port for his fleets in the Red Sea; and the certain means of conveying the imports and exports over-land, from the Red Sea to the Mediterranean. Solomon³ however, though he exacted a tax upon spices, and contributions from the kings and governors of Arabia, and shared in the profits of the trade, still had no fleets on the Mediterranean—no commerce on that sea. This circumstance gave Tyre a monopoly in regard to the whole communication with the Western World; for though Egypt and Syria might receive the same articles from the East, we read of no fleets or commerce from these countries towards the West, in the hands of their respective inhabitants.

The immense profits of this monopoly admit of calculation, if we dare trust to the Hebrew numbers in scripture; but Dr. Kennicott has shewn, that in some instances the amount expressed by these has doubtless been exaggerated; and if the numeration by letters was used in the original transcripts of the sacred writings, it is well known that numerary letters are more subject to error, corruption, or exaggeration, in the manuscripts of all languages, than any other part of their text.

³ 1 Kings, x. 15.

But

But let us suppose that the advantages of Hiram were equal to those of Solomon, which is not unreasonable if we consider, that though Solomon enjoyed the profits of the transit, Hiram had the whole emolument of the commerce with the West. Let us then observe that the revenue of Solomon is stated at six hundred and sixty-six talents of gold, which, according to Arbuthnot, amount to three millions six hundred and forty-six thousand three hundred and fifty pounds sterling—an extravagant sum at first sight! but not impossible, if we compare it with the revenues of Egypt, which, after the building of Alexandria, enjoyed the same commerce, and the same monopoly. Even at the present day, when the grand source of Egyptian wealth is obstructed by the discovery of the Cape of Good Hope, Sir Home Popham estimates the revenue at twenty⁴ millions of dollars⁵, equal to between four and five millions English; and when the same revenue, under the Roman government, may be estimated at three millions, which, allowing for the different ratio of specie, may be taken at four times that amount. Let us reflect on these extraordinary sums, before we conclude upon the impossibility of the same commerce, and the same monopoly, producing a revenue of three millions and an half to Solomon, upon the import and transit; and the same sum to Hiram, upon the export. I dare not assert these to be facts, because I think, with Dr. Kennicott, that numerary letters are liable to error; but the revenue of Solomon is twice⁶ stated at the same sum; and the contemplation

⁴ Of all this revenue, notwithstanding the Grand Signor styles himself master of Egypt, scarcely a shilling reaches Constantinople.

⁵ Sir Home Popham's concise Statement of Facts, p. 154.

⁶ 1 Kings, x. 14. 2 Chron. ix. 13. The great amount of this revenue is still further increased by the declaration, that the 666 talents of gold were exclusive of the taxes upon the merchants. Verse 14.

of the revenue of Egypt in the same situation ; and under similar circumstances, admits of imputing an immense emolument to this commerce, wherever it became a monopoly.

I have been led into this discussion, upon which every one must form his own judgment, by the specific detail of the Tyrian commerce, in the twenty-seventh chapter of Ezekiel, which, if we consider it only as historical, without any reference to the divine authority of the Prophet, is not only the most early, but the most authentic record extant, relative to the commerce of the ancients ; as such, it forms a part of the plan which I have undertaken to execute. In this view I submit it to the reader ; and though I pretend not to any power of throwing new light on the subject, and despair of removing those difficulties which surpassed even the learning of a Bochart fully to elucidate, still there will not remain any general obscurity which will prevent us from forming a right judgment upon the whole.

Tyre⁷ was one of those states which had rejoiced at the destruction of Jerusalem, and the captivity of Judah ; it became therefore an object of prophecy to declare, that she also was to fall by the hands of the same conqueror, who had subverted the throne of David ; but so much more abundant were the means, or so much stouter was the defence of this commercial city, that the army of Nebuchadnezzar lay before it thirteen years ; and it was not taken till the fifteenth after the captivity, in the year 573⁸ before Christ ; and when taken, it was so exhausted by the siege, or so deserted by the inhabitants, that the conqueror found nothing to reward him for his labours. Prideaux supposes this city to be the Old Tyre on the conti-

⁷ Ezek. xxvi.

⁸ Prideaux, vol. i. p. 72.

ment; and that the inhabitants took refuge on the island, where the new city flourished again with almost the same vigour as its parent, till it was destroyed by Alexander in the year 332 A. C. two hundred and forty-one years after the reduction of it by the Babylonians. But, by the language of Ezekiel, it seems as if the city was upon the island in 573; for (in chapter xxvii. 3.) he says, Thou that art at the *entry*⁹ of the sea; and in the following verse, and in c. xxviii. the expression is, "I sit in the *midst* of the seas," or, as it is in the original, "in the *heart* of the seas." The question is not of great importance; but as it rose again after its first reduction, by means of its situation, and the operation of the same causes, those causes ceased after its second fall, by the removal of Oriental commerce to Alexandria; and from that period it gradually declined, till it has become a village under the desolating government of the Turks; where Maundrel informs us, that he saw the prophecy of Ezekiel literally fulfilled¹⁰; for when he was there, the fishermen were "drying their nets upon the rocks."

EZEKIEL, c. XXVII.

IN undertaking the elucidation of this chapter, perspicuity is the only object in view; omitting, therefore, all consideration of the sublimity of prophecy, or the majesty of language, I propose, first, to illustrate the commerce of Tyre in its various branches, by redu-

⁹ *At the entering in of the sea.* Newcombe. An expression which seems to imply, the channel between the island and the main; but all the commentators unite in the same opinion with Prideaux.

¹⁰ Ezek. xxvi. 14. Maundrel, p. 49. He says, it is not even a village, but that the few miserable fishermen who inhabit the place, shelter themselves under the ruins.

cing the Hebrew appellations to the standard of modern geography ; and, secondly, to give a commentary on the whole, deduced from the best writers on the subject. By this method, due regard will be had to the convenience of one class of readers, and the curiosity of another ; and although I pretend not to assign every ancient name, with precision, to its modern representative, still there will remain such a degree of certainty upon the whole as to gratify all that have a pleasure in researches of this nature.

Let us then, in conformity to the opening of the prophecy, consider Tyre as a city of great splendour, magnificently built, and inhabited by merchants whose wealth rivalled the opulence of kings—who traded to the East by the intervention of Arabia, and to the West by means of the Mediterranean ; let us add to this, that in ages prior to the celebrity of Greece and Rome, their fleets had braved the dangers of the ocean, and their people were the only mariners who were not limited within the circle of the Mediterranean ; that they penetrated eastward through the Straits of Death¹¹, which were the termination of the Red Sea, and westward beyond the Pillars of Hercules, which were the boundaries of all knowledge to every nation but their own ; that they advanced northward to the British Isles, and southward to the coast of Africa on the Atlantic Ocean¹². Let us contemplate these enterprizes as completed by the efforts of a single city, which possibly did not possess a territory of twenty miles in circumference ; which sustained a siege of

¹¹ The Straits of Bab-el-mandeb, literally that the Phœnicians came to Britain ; but in the Gate of Death. what age, may be a doubt. If they reached

¹² If this should be thought dubious in regard to Tyre, it is undoubted in regard to its colony, Carthage. It is the universal opinion Gades only in the times here alluded to, it was passing the Straits of Calpè, which at that period no other nation did.

thirteen years against all the power of Babylon, and another, of eight months, against Alexander, in the full career of his victories; and then judge, whether a commercial spirit debases the nature of man, or unfits it for the exertion of determined valour; or whether any single city, recorded in history, is worthy to be compared with Tyre.

After this general view of the splendour of the city, we may proceed to the particulars specified in the Prophecy. First, therefore, Tyre procured,

Verse

5. From Hermon, and the mountains in its neighbourhood—
Fir for planking.
From Libanus—Cedars, for masts.
6. From Bashan, east of the sea of Galilee—Oaks, for oars.
From Greece, or the Grecian Isles—Ivory, to adorn the
benches or thwarts of the galleys.
7. From Egypt—Linen, ornamented with different colours, for
sails, or flags and ensigns.
From Peloponnesus—Blue and purple cloths, for awnings.
8. From Sidon and Aradus—Mariners; but Tyre itself furnished
pilots and commanders.
9. From Gebal, or Biblos, on the coast between Tripolis and
Berýtus—Caulkers.
10. From Persia and Africa—Mercenary troops.
11. From Arádus—The troops that garrisoned Tyre with the
Gammadims.
12. From Tarshish, or by distant voyages towards the West, and
towards the East—Great wealth. Iron, *tin*, lead, and silver.
Tin implies Britain, or Spain; or at least a voyage beyond
the Straits of Hercules.

Verse

13. From Greece, and from the countries bordering on Pontus—
Slaves, and brass ware.
14. From Armenia—Horses, horsemen, and mules.
15. From the Gulph of Persia, and the isles in that gulph—Horns
[tusks] of ivory, and ebony. And the export to these isles
was the manufacture of Tyre.
16. From Syria—Emeralds, purple, brodered work, fine linen,
coral, and agate. The exports to Syria were the manu-
factures of Tyre, in great quantities.
17. From Judah and Israel—The finest wheat, honey, oil, and
balsam.
18. From Damascus—Wine of Chalybon (the country bordering
on the modern Aleppo), and wool in the fleece. The ex-
ports to Damascus were, costly and various manufactures.
19. From the tribe of Dan¹³, situated nearest to the Philistines—
The produce of Arabia, bright or wrought iron, casia or
cinnamon, and the calamus aromaticus. In conducting
the transport of these articles, Dan went to and fro, that
is, formed or conducted the caravans. By one interpre-
tation they are said to come from Uzal; and Uzal is judged
to be Sana, the capital of Yemen, or Arabia Felix.
20. From the Gulph of Persia—Rich cloth, for the decoration of
chariots or horsemen.
21. From Arabia Petræa and Hedjaz—Lambs, and rams, and
goats.

¹³ Dan and Javan may in this passage both be Arabian; but if Dan be a tribe of Israel, its situation is between the Philistines and Joppa; and the people of that tribe would lie most convenient for the caravans between Petra and Joppa. From Joppa the merchandize would be conveyed to Tyre by sea, as it was at a later period from Rhinocolûra.

22. From

Verse

22. From Sabêa and Oman—The best of spices from India, gold, and precious stones.
23. From Mesopotamia, from Carrhæ, and Babylonia, the Assyrians brought all sorts of exquisite things, that is fine manufacture, blue cloth and brodered work, or fabricks of various colours, in chests of cedar, bound with cords, containing rich apparel. If these articles are obtained farther from the East, may they not be the fabricks of India, first brought to Assyria by the Gulph of Persia? or caravans from Karmania and the Indus, and then conveyed by the Assyrians in other caravans to Tyre and Syria? In this view the care of package, the chests of cedar, and the cording of the chests, are all correspondent to the nature of such a transport.
25. From Tarshish the ships came that rejoiced in the market of Tyre, they replenished the city, and made it glorious in the midst of the sea; and if we could now satisfy ourselves, with Gossellin, that Tarshish means only the sea in general, these ships might be either those which traded in the Mediterranean, or those which came up the Red Sea to Elath, or Leukè Komè, or any other port of Arabia. I am rather inclined to the latter, because, from the nineteenth to the twenty-fourth verse, every particular relates to the East, and apparently to the produce of India; but if we are to understand, literally, the joy of the ships in the harbour of Tyre, they must be those of the Mediterranean; and this supposition accords best with the Tarshish noticed in the twelfth verse, which by the mention of silver, lead and *tin*, evidently alludes to Spain, and perhaps to the British Isles.

Such

Such is the historical part of this singular chapter relative to the commerce of Tyre, and illustrative of all ancient commerce whatsoever. It is uttered, however, in an age when the Tyrian fleets no longer sailed from Eziongeber, and when the commodities of the East were received by caravans from Arabia Petrêa, Sabêa, and Mesopotamia. From the time that Judah was separated from Israel, there does not appear to have remained vigour sufficient in either, to have maintained such a power over Idumêa, as to have secured a communication with the Elanitic Gulph, for the only attempt to recover this influence was made by the united efforts of both kingdoms, and a treaty between their two kings, Jehosaphat and Ahaziah; but the attempt was superior to their united force, and their ships were broken in Eziongeber. From this period¹⁴, and probably from the termination of Solomon's reign, the Tyrians had no ships on the Red Sea, and supported their communication with it by land only; their track varying as the power of the neighbouring countries fluctuated. This point it is not necessary to insist on, but in an age posterior to the prophecy, and long after the second capture of the city by Alexander, we find that a line of intercourse was open between Rhinocolûra¹⁵ and Petra. It is not, however, the object of the present inquiry to go lower than the second siege; but barely to mention, that even under the Roman Empire a spirit of

¹⁴ 2 Chron. xx. 35. Jehosaphat at first refused a junction with Ahaziah; and, after complying with it, Eliezer declared, that was the reason why the power of God was exerted to defeat the undertaking.

¹⁵ See Strabo (lib. xvi. p. 781.) where he mentions expressly the course of the caravans from Leukè Komè to Petra, and from Petra to Rhinocolûra. Rhinocolûra is the limit be-

tween Egypt and Palestine—the El Arish, so much noticed during the continuance of the French in Egypt. The distance may be compared with that between Elana and Gaza (p. 759.), which is stated at 1260 stadia, or 160 miles. Rhino-colûra is a Greek term, derived from the practice of cutting off the noses of the malefactors sent to garrison this frontier of Egypt.

commerce:

commerce subsisted still in Phœnicia, and that Berýtus and Tyre¹⁶ were celebrated for their manufactures of silk, glass and salt, however obscured by the splendour of Alexandria, and the establishment of that city as the centre of Oriental commerce under the power of the Romans.

Over such a seat of mercantile power, opulence, and magnificence, at the period when it was ready to be overwhelmed by the invasion of the Babylonians, we may be allowed to breathe the sigh of commiseration, however we resign ourselves to the justice of Providence in its destruction; idolatry, pride, luxury, and intemperance, we learn from the following chapter, were the cause of its punishment, and the instrument commissioned to inflict it, was an oppressor equally idolatrous and proud.

It remains only to subjoin the authorities, on which, known appellations have been substituted for Hebrew terms; on this head, if complete satisfaction is not attainable, we may, at least, hope for some indulgence, and much deference to the names of Bochart, Michaelis, Houbigant, and Archbishop Newcombe, the learned translator of the Prophet; and if I sometimes interpose a suggestion of my own, let it be considered as a conjecture, and subject to the corrections of those who are better qualified as judges of Hebrew literature than myself.

¹⁶ See Lowth on Isaiah, c. xxiii. last note.

COMMENTARY

ON

EZEKIEL, c. xxvii.

THE four first verses represent to us the situation of Tyre: it is placed at the entering¹⁷ in of the sea—in the midst of the seas—in the heart of the seas; expressions which seem to intimate that the city was on an island¹⁸, but the general opinion of the commentators places it on the main, and call it Palæ Tyrus, or Old Tyre, in contradistinction to the new city, which rose on the island out of the remnant of the inhabitants that fled from the king of Babylon. Its splendour¹⁹ is described as *perfected* in beauty.

V. 5. Senir furnished fir for ship boards (planking); and Lebanon, cedar for masts.

[Sanir, vulgate, septuagint.

Firs, rendered cedars, sept. but firs, vulg. Chald. Newcombe.

Cedars, rendered cypresses, sept.

Cedars, אֵרֹז, arez. Michaelis says, the present inhabitants of Lebanon use אֵרֹז for a tree that answers to the cedar. See Parkhurst in voce רוֹזָה, and in כְּרוֹשִׁים, firs.]

Senir is part of Hermon (Deut. iii. 9.) “Hermon the Sidonians call Sirion, and the Amorites call it Shenir.” (1 Chron. v. 23.) “Manasseh increased from Bashan to Baal Hermon, and Senir, and Mount Hermon. Newcombe.”—Hermon is a branch of Antili-

¹⁷ Newcombe's Translation.

Is Palæ-Tyrus on a rock?

¹⁸ צוּר, Tzor, Tsoor; from whence Συρία and Syria, signifies a rock. May it not be the rock in the sea on which Tyre was built?

¹⁹ See Bochart, Phaleg. 303, where its origin and magnificence are described.

banus, from which the springs of Jordan issue; and thus very properly joined or contrasted with Lebanon. Lebanon signifies white, and snow lies upon Lebanon in summer.

V. 6. Bashan produces oaks, for oars. Bashan is the Batanêa of the Greeks, east of the sea of Galilee, possessed by the half-tribe of Manasseh. "We do not readily see why cedars should be adapted to masts, or oaks used for oars. Cedar, however, is light; but oaks have neither elasticity or levity, but strength only. Houbigant alone renders it alders, for this reason." Abp. Newcombe.

בַּתְּאֲשֻׁרִים Bath-Ashurim, rendered Ashurites in our English Bibles; but in the margin, Chaldee and Parkhurst, *box tree*; as if from תַּאשׁוּר Thashur, and so בַּתְּאֲשֻׁרִים Bathashurim, in one word. The whole sentence would then stand thus, as Archbp. Newcombe renders it: "Thy benches have they made of ivory, inlaid in box, from the isles of Chittim." The Chaldee seems to refer these to the ornament of houses, &c.; but the vulgate has, expressly, *transira*, or *the thwarts* of galleys; and our English Bible, *batches* in the margin. Chittim is applied to Cyprus by Josephus—to Macedonia, in the first book of Maccabees; but to Italy and the islands round it, particularly Corsica, by Bochart. Lowth on Isaiah xxiii. considers Chittim as comprehending all the isles and coasts of the Mediterranean; and Jerome, as the islands of the Ionian and Egæan Sea. The latter appear to correspond best with the importation of box wood from Cytôrûs in the Euxine, the place most celebrated, poetically, for that production; and the box wood of Pontus and Asia Minor is imported at this day into the Port of London, from Smyrna. The Chaldee renders it Apulia, and the vulgate, Italy.

V. 7. Fine

V. 7. Fine linen of various colours, from Egypt, was used as a sail or rather, as a flag for ensigns. (Vulgate, Chaldee, Newcombe.) Scarlet and purple, from the Isles of Elis, for a covering or awning to the galleys. Scarlet is rendered by Hyacinthus in the vulgate and Chaldee, that is, the colour of the Amethyst; and the Isles of Elis are Elis, Hellas, or Peloponnesus. The purple of Laconia was the finest dye next to the Tyrian; and the purple cloth of that province was possibly employed, because it was cheaper than that of Tyre, which was reserved for the use of kings. Elis is one of the sons of Javan (Gen. x. 4.); and as Javan is the general title for the Greek nation, Elis may justly be taken for a part. (Bochart, Phaleg. 155.)

V. 8. Zidon and Aradus furnished mariners, but the pilots or commanders were Tyrians: "Thy wise men, O Tyrus, that were in thee, were thy pilots." Zidon is too well known as the parent of Tyre, to require further notice; but Aradus is on an island like Tyre, at the mouth of the Eleutherus, to the north of Tripolis, and much celebrated for its commerce by the ancients. In the modern title of Ruad, it preserves a nearer resemblance to the Hebrew Arad, than to the Greek Aradus. Bochart (Phaleg. 305.) gives a large account of this place from Strabo, lib. xii. 753, consisting of many interesting particulars.

V. 9. The ancient inhabitants of Gebal were caulkers in the harbour of Tyre: they were mariners likewise, bringing merchandize to that city (Chaldee), or sailing in the Tyrian ships to the westward of the West; ~~in the West~~ (in occidentem occidentis, septuag.); to the extremity of the West. Perhaps we find a rudiment of this reading in the Hebrew; for Archbp. Newcombe ob-

serves, that five manuscripts read לערוב layarobh, the *evening*, or *west*, which the sept. followed, probably instead of לעבר layabhar, *beyond*. If this could be admitted, the extremity of the West would at least be Spain, and might be Britain. Gebal, according to Bochart, is Biblos; and Gebail is the name of that place at this day, according to the position of d'Anville in his Map of Phœnicia. Laodicææ propinqua sunt oppidula Posidium, Heraclium, *Gabala* deinde Aradiorum maritima regio. (Bochart, 305. from Strabo, lib. xii. 753.)

V. 10. Persia, Lud and Phut, furnished soldiers for the armies of Tyre.

V. 11. The Aradians and Gammadim formed the garrison of the city.

Persia and Arádus are self-evident. Lud and Phut are rendered Lydians, and Libyans or Africans. (Vulg. sept. and Chaldee.) But Bochart and Michaelis think Lud an Egyptian colony, from Gen. x. 13. where Ludim is the son of Misraim; and Misraim, the son of Ham, is Egypt. Bochart, however, considers Lud as both Lydia and Africa; but joined with Phut, as it is in this passage, it is more applicable to the latter, for Phut is the brother of Misraim. (Phaleg. 294.)

In this circumstance we find, therefore, that Tyre, like its colony Carthage, employed mercenary troops while the natives were wholly addicted to commerce. Gammadim is rendered Cappadocians. (Chaldee.) Medes. (sept.) Pigmees. (vulgat.) (from גמל Gamal, sesquipedales,) and Phœnicians by Newcombe, but he adds Gamarim or Gomerim is in 8 MSS. and Gomer according to Bochart is Phrygia; (p. 172.) the true meaning seems irrecoverable. Still we
may

may see that the Persian and African²⁰ mercenaries were for foreign service; and the Aradians as joined in the same commercial interest were entrusted with the defence of the city.

V. 12. Tarshish was a merchant in the multitude of all kind of riches, and traded in silver, iron, tin and lead; the mention of tin naturally suggests the idea of Britain, and that the Tyrians did come to Britain, is asserted by the general testimony of the ancients; but what Tarshish is, remains to be determined after all that has been written by every author that has touched upon the subject. Bochart has no doubt of its being Tartessus²¹ in Spain, near the Straits of Gibraltar, and the articles of silver and lead might doubtless be procured in that country; but whether tin could be collected there as a general cargo is highly dubious; for though Diodorus mentions that tin was found in Spain, the bulk of that metal was only obtainable in Britain; and as it is universally confessed that the Tyrians visited Britain, they might rather have gone thither to purchase it at first hand, than buy it in Spain, where it must have been enhanced by the expence of importation, and the profit of intermediate merchants. Be this however as it may, it is evident by the articles mentioned, that this was a western voyage, and so far whether to Spain or Britain is immaterial, for the great difficulty is, that Tarshish in scripture as clearly applies to an eastern voyage down the Red Sea, as to a western one towards Spain; this appears in the

²⁰ The modern Carthage, as the French call England, is said to be raising at this time a body of Africans for service in the West Indies. The omen is not auspicious, and the design is probably abandoned.

²¹ Lamy objects to this very justly, that Tarshish is mentioned as a precious stone by

Moses, before Tartessus could be in existence. He thinks Tarshish signifies gold, or a stone the colour of gold, the chrysolite or topaz; and that the voyage of Tarshish had a reference to this, as gold and precious stones were the produce of it. See *Introd. à l'Ecriture*, cap. iv. p. 425.

voyage mentioned in the first of Kings (x. 22.) "Solomon had at sea a navy of Tarshish with the navy of Hiram." This was in the Red Sea, and brought a very different cargo—gold, silver, ivory, apes and peacocks, (2 Chron. ix. 21.) and (again xx. 36.) Jehoshaphat joined with Ahaziah to make ships to go to Tarshish, and they made ships in Eziongeber; so likewise, (1 Kings, xxii. 48.) Jehoshaphat made ships of Tarshish to go to Ophir for gold; and as the whole of this, by the mention of Eziongeber, directs us east to the Red Sea; so does the flight of Jonah as evidently direct us to a voyage west, on the Mediterranean, for the Prophet takes shipping at Joppa in order to flee to Tarshish.

For the purpose of reconciling these two opposite ideas, M. Gosselin supposes, that Tarshish means the sea in general, and he likewise supposes two voyages eastward, one to Ophir in Hadramaut, and another to Tarshish, which he states as no distinct place; but that the expression intimates a coasting voyage down the African side of the Red Sea, in which they touched at several different ports, and were delayed by the change of the monsoon. The former part of this hypothesis, that Tarshish signifies the sea in general, I wish to adopt; and there is little to contradict this opinion, except the verse itself now under consideration; but in regard to two eastern²² voyages, one to Ophir, and another down the western side of the Red Sea at large, I have great doubts; I shall, therefore, first collect the suffrages of the interpreters, and then compare the principal texts of scripture concerned; after this, if the difficulty is

²² 1 Kings, xxii. 48. "Jehoshaphat made to Ophir; and this concludes against the two
" ships of Tharshish to go to Ophir for gold." voyages of Gosselin, one to Ophir and one to
Here the ships of Tharshish are those that go Tharshish.

still incapable of solution, no blame will attach to a failure which is common to so many writers of erudition and discernment.

Tarshish is rendered Carthage in the vulgate; but the objection to this, is, that though tin and lead might be purchased in Carthage, as platina and tutaneg may be obtained in London, yet this is not enough; the whole chapter specifies the distinct produce of the several countries, and not the places where the produce might accidentally be found.

The septuagint render it Chalcedon²³, which is a city on the Bosphorus; but this seems to have arisen from a reference to the first sense of Tarshish, which is a precious stone, (Parkhurst says the topaz) but, however, it may be doubtful whether a Chalcedony (which is an agate) or whether a topaz is meant by the septuagint. The rendering of Tarshish by Chalcedon is evidently an allusion to the name of a precious stone.

The Chaldee Paraphrase says expressly מִן יָמָא Min yama; *de mari* adducebant mercimonia, which is in conformity with Gossellin's opinion.

The English Bible and Newcombe's translation preserve the Tarshish of the original.

Let us next observe the usage of this term in scripture. It occurs first in Gen. x. 4. where the sons of Javan are Elishah, Tarshish, Kittim and Dodanim. Now Javan is the general name for Iônes²⁴ or Greeks, and his descendants ought to be the division of that nation, as the sons of Misraim, (Gen. x. 13.) are the distinctions of the tribes of Africa. In conformity to this, Elishah has been rendered Elis, Hellas, or Peloponnesus; Kittim the Greek Isles, or per-

²³ Χαλκηδών and Καρχηδών are easily interchanged.

²⁴ Daniel, viii. 21. מֶלֶךְ יָוָן Melek Javan, the King of Grecia, id. x. 20. xi. 2.

haps Macedonia; and Dodonim Dodona, or the western side of Greece towards the Hadriatic. What then would be Tarshish? Bochart and others are not content with this; he supposes Kittim to be Italy, and Rodanim²⁵ for Dodanim, to be Gaul about the Rhodanus or Rhone, and Tarshish to be Spain; that is Tartessus. Parkhurst likewise admits Tartessus, and Michaelis imagines, that the fleet fitted out at Eziongeber, circumnavigated the continent of Africa to reach Tartessus by the Indian and Atlantic Ocean. This solution he assumes, because the voyage was of three years continuance, and because Solomon had no ports on the Mediterranean. The latter reason cannot be admitted while Solomon and Hiram had a joint concern; for during that union, the fleet might have sailed from Tyre. But the three years allowed for the voyage are not sufficient, if calculated by the voyage of the Phœnicians sent by Neco, which is probably the ground of Michaelis's estimate; for they were three years in reaching the Mediterranean; and consequently the voyage round Africa to Tartessus, and back again, would require not three, but six years for its completion.

Upon a view of these difficulties, if we should return to Javan, and wish to establish all his family in Greece, we ought to find a situation for Tarshish in that country; and if this cannot be done, it must be confessed that the position of Tarshish cannot be discovered by the text of Genesis the tenth. Omitting this, therefore, for the present, we may proceed to other passages connected with the subject of inquiry.

It has been proved already (from 1 Kings, xxii. 48.) that the ships of Tarshish built by Jehoshaphat at Eziongeber, went east to Ophir,

²⁵ Rodanim is not merely an assumption of the margin of our English Bible. The daleth Bochart's; it is read in several MSS. and in and resh are easily interchanged: 7 for 7.

and (from Jonah, i. 3. iv. 2.) that Jonah, by embarking at Joppa, fled westward on the Mediterranean. Now the sea is common to both these voyages, but no one specific place, country, or city, can be common to both; and upon a careful examination of all the passages adduced by Gossellin, and all that are to be found in the concordance, there is not one which may not be rendered justly by *the sea*, as Gossellin has asserted. The Vulgate and the Chaldee vary in different places, but the prevailing construction is *mare* or *maria*; and the Vulgate (on the 1 Kings, x. 2. xxii. 49.) has ships of Africa, which might give rise to the opinion of Montesquieu and Bruce, that Ophir was at Sofala; but Africa is itself a suspected term in Hebrew; for it is Latin, not used by the Hebrews, whose phrase was Lubim, and little by the Greeks²³, who adopted Libya from the same origin; but in the Chaldee it is in so many letters אפריקה Africa (1 Kings, xxii. 49), and this term is doubtless, in comparison, modern. The other texts are, if any one should wish to examine them. (2 Chron. ix. 21. xx. 36, 37. Psalm xlviii. 7. Thou breakest the ships of the sea, lxxii. 10. the kings of Tharsis; kings beyond sea in Sabêa. Is. ii. 16. xxiii. 1. the burden of Tyre, howl ye ships of Tarshish, naves maris. Vulg. Chald. ibid. ver. 6. Pass ye over to Tarshish, transite maria. Vulg. Chald. and at ver. 10. Tyre is called daughter of Tarshish בת תרשיש Bath Tarshish, daughter or virgin of the sea, Filia maris. Vulg. And what appellation can be more proper, for such a city which owed its existence to the sea? Is. lx. 9. ships of Tarshish, naves maris. Vulg. Chald. lxvi. 19. I will send them that escape to Tarshish, ad gentes in mare. Vulg. ad provincias maritimas. Chald.)

²³ Perhaps never till after their connection with Rome.

Upon the evidence of all these passages, there is no hesitation in subscribing to the opinion of Gosselin, but his double voyage down the Red Sea is by no means equally apparent. There is likewise great reason to adopt Parkhurst's idea, that they were large and strong ships, fit for distant voyages; or if the reading of the septuagint (Ez. xxvii. 9.) could be admitted, we might add, that they were stout enough to pass (*ἐπὶ δυσμαῶς δυσμῶν*²⁶) to the extremities of the west, to the Atlantic and Britain; or to the east, through (Babel Mandeb) the Straits of Death, and so to the southern coast of Arabia. This account we have from scripture, and it is clear; but the voyage to Britain, though generally admitted, is far more problematical, for the evidence of Strabo²⁷ goes only to prove, that a Phenician vessel was run ashore in order to deceive the Romans, which must relate to a much later period; and the testimony of Diodorus Siculus²⁸ intimates, that even in his time, tin was brought from Britain, through Gaul, by a land carriage of thirty days, to the mouth of the Rhone, or perhaps to Marfeilles. Still that the Tyrians did obtain tin is manifest from Ezekiel, and that they passed the Straits of Calpé, and reached Gades at least, is certain, for the temple of Hercules in that island was the Melcartha²⁹ of Tyre, whom, from his attributes, the Greeks styled the Tyrian Hercules.

V. 13. Javan Tubal and Meshech dealt in slaves and vessels of brass, intimating probably that they *all* dealt in slaves, for slaves came out of the Euxine and the countries round it in all ages into Greece, and still

²⁶ That we may not mislead, it is necessary to observe, that this term is not used in the verse under contemplation, but in v. 9. I wish to find any where an extreme western voyage, to Gades or to Britain, which I must confess

is not perfectly clear.

²⁷ Strabo, lib. iii. p. 175.

²⁸ Lib. v. 347. West.

²⁹ Melcartha is Melek Cartha, the King of the City. Bochart.

come to Constantinople. The Greeks of course carried these or others which they obtained by piracy to Tyre as well as other maritime cities. Brass vessels will apply more particularly to Tubal and Meshech, which are usually rendered Tibareni and Moschi, who, with the Chalybes and other inhabitants of the north-east angle of Asia Minor, have been in all ages, and still are the manufacturers of steel, iron, and brass, for the supply of Armenia, Persia, Greece, and all the eastern countries on the Mediterranean. (See Busching and Michaelis cited by Newcombe on this passage, and Bochart.) Tubal and Meshech are generally mentioned together in scripture, and Tubaleni is as naturally Tybareni, as Mesheck, which the Chaldee reads Mosock, is Moschi, while Javan, Tubal and Mesheck are all sons of Japhet. (Gen. x. 2.)

V. 14. Togarmah traded in horses, horsemen and mules, which Bochart supposes to be Cappadocia, (p. 175, Phaleg.) but Michaelis with much greater probability, Armenia, for Armenia and Media were the countries where the kings of Persia bred horses for the service of themselves and their armies, and in later times Armenia paid its tribute from this source. See Newcombe, who cites the Greek Scholiast on Ezekiel, and Ez. xxxviii. 6. The Chaldee renders it unaccountably by Germania. The objection to assuming Armenia for Togarma, is, that Armenia is in every other passage represented by Ararat. (See particularly 2 Kings, xix. 37. and Isaiah, xxxvii. 38. and Jeremiah, li. 27.) I have not had an opportunity of consulting Michaelis Spicileg. Geographicum, and can judge of it only as it is cited in Newcombe.

Ver. 15. Dedan is mentioned in conjunction with the merchants of many isles; they brought horns (tusks) of ivory and ebony.

Dedan is strangely rendered by the septuagint Rhodians. They must, therefore, have read a resh for a daeth; but Dedan³⁰ is doubtless on the southern coast of Arabia, for he is mentioned (Gen. x. 7.) with Seba, Havilah, Sheba and Raamah, all nations of Arabia and on the south. There is still a Dadena on the coast of Oman, opposite to Cape Jasque; and a Rhegma, within the Gulph of Persia, not far from Moçandon, is found in Ptolemy, corresponding with Raamah or Rahmah, in the opinion of Patrick. Without, however, insisting on these resemblances, we may be certain of the country from the other names with which it is united, and its produce; for ivory and ebony are furnished only by India and Africa, and the province of Oman deals with both. If we read *borns* of ivory, with our English Bible, they are the *tusks* resembling horns. If horns and ivory, with archbishop Newcombe, the horns from the isles may be tortoise-shell, peculiar to the isles of India; and ebony, if Virgil be good authority, is found in India and nowhere else.

Sola India nigrum,

Fert Ebum. Georg. ii. 117. Newcombe.

It is evident, therefore, that we are here first introduced to Oriental commerce, and from this verse to the 25th, every article specified is from the east, and every place mentioned, is to the east of Tyre, or connected with the trade eastward. To those who have a curiosity on this subject, this is the most remarkable singularity of the chapter, and the establishment of the fact will be self-evident. The Chaldee renders horns by *cornibus caprearum*, and adds *pavones*, from the general ac-

³⁰ I follow Bochart and Michaelis in placing Dedan on the eastern coast of Arabia, and I think they are right; but Dedan is mentioned with Tema, Jer. xxv. 23. and with Esau, xlix. 8. Tema is by Niebuhr supposed to be the Tehama, or coast of Arabia, on the Red Sea; and Esau is in Hedjaz. This makes a difficulty; but the countries mentioned with Dedan, and the articles imported, indicate the south-east angle of Arabia.

counts of the voyage to Ophir, but neither of these additions is justified by the text.

V. 16. Syria was the purchaser of the manufactures of Tyre; and the Syrians brought in return, emeralds, purple, embroidered work, fine linen, coral, and agate. Syria, in the original, is Aram or Aramêa; and Aram, in scripture, is sometimes Mesopotamia, sometimes Damascus³¹, and likewise the country about Libanus, and the Orontes. Emeralds, fine linen³², coral, and agate, are doubtless from the East; but as to the appropriation of these names specifically to different precious stones, it is quite indeterminate. Fine linen, and embroidered or variegated work, may be the cottons or muslins from India, but is too general a term to be depended on. Still, upon the whole, we may imagine, that all these are articles brought by land from the Gulph of Persia, through Mesopotamia or Damascus, in exchange for the manufactures of Tyre. Purple and fine linen are frequently united in the language of Scripture, and the usual interpretation is, fine linen of a purple colour; of this, though Michaelis says purple would not be brought to Tyre, but exported from it, there might be an importation (see Newcombe in loco) from India through this channel.

V. 17. Judah and Israel brought to Tyre wheat of minnith³³, or fine wheat (Vulg. Sept. Chaldee), and pannag, perhaps panicum, millet or doura, with honey, oil, and balsam. There is little fluctuation in the versions; and though pannag may be dubious, the other articles are the natural produce of Judah and Israel; and balsam is

³¹ Aram-Damasek is Damascus, the proper capital of Syria.

³² בּוּץ Butz, Byssus, every where rendered fine linen, is supposed every where to

be cotton.

³³ Minnith occurs in no other passage. Minni is used for Armenia, but can have no application here.

from

from Jericho, where the plant which produces it grew in Maundrel's time.

V. 18. Damascus received the richest manufactures of Tyre, in exchange for wine of Helbon, and white wool, that is, wool in the fleece or unwrought. If Tyre bought wool in the fleece, and manufactured it, it is the same policy as Flanders adopted formerly in regard to the wool of England. The wine of Helbon is the Chalybon of the Greeks; the kings of Persia drank no other. (Newcombe from Strabo.) Syrian wine is still celebrated, and Laodicæan wine is an article of commerce in the Periplus. The Eastern name of Aleppo is still Haleb; and Haleb, Halebon, or Chalybon, are only varied by different aspirates or Greek terminations. The river Chalus, which Xenophon mentions in the expedition of the ten thousand³⁴, must be near the present Aleppo, or the very stream which at this day supplies that city with water. Damascus lies upon the route from Aleppo to Tyre; and to Aleppo the distance is about double that to Tyre.

V. 19. Dan and Javan, *going to and fro*, brought iron³⁵, and cassia, and calamus: the two last articles are evidently Oriental, and Indian iron is likewise a part of the Eastern invoice in the Periplus. We are therefore to look for this Javan, not in Greece, as before, but in Arabia, and to point out the distinction between the two Javans. The adjunct of the name, rendered in our English Bible *going to and fro*³⁶, is in the original Me-Uzal; and Uzal is explained by Gen. x. 27. where Uzal is the son of Joktan, joined with Hazar-

³⁴ See Cyri Exp. p. 254. Leuncl. See also Ruffel's Aleppo, where it seems the river Kock, chap. i.; and d'Anville's Map of the

Tigris and Euphrates.

³⁵ Bright or wrought iron, in the original.

³⁶ From ^לאזל azal, to go.

maveth (Hadramaut), Sheba, Ophir, and Havilah; all which we know to be in Arabia, and consequently Javan³⁷, Me-Uzal, is so likewise. It is unwillingly that I drop the sense of *going to and fro*, because it expresses the practice of a caravan; but the retaining Uzal as a proper name, is justified by the Vulgate³⁸ and Sept. and approved by Newcombe, and Michaelis, who adds, from Golius, Azal nomen Sanaæ quæ metropolis Arabiæ felicis. Michaelis also supposes Dan to be Vadan, and a city of Arabia; but of Vadan³⁹ there are no traces in Gen. x.; if it is Dan, one of the tribes of Israel, his situation is between the Philistines and Joppa, placed very commodiously for receiving the caravans from Arabia in that age, which came to Rhinocolûra in a later; and equally convenient for embarking at Joppa the commodities brought by the caravans to be conveyed to Tyre. Be this as it may, the traffic is undoubtedly Arabian, and from the southern⁴⁰ coast; for (קרה) khiddah, is cassia, the cassia lignea of the ancients, from (קר) khad, to cut or divide lengthways, in contradistinction to kasia fistula⁴¹, the pipe cinnamon, which we now prefer. The (קנה) khaneh likewise, or reed, if it be the calamus aromaticus, is of Indian growth. There can be no doubt therefore remaining, but that this verse fully establishes the intercourse of Tyre with India, through the intervention of Arabia; and no doubt that the Arabians went to India, or ships of India came to Arabia. This circumstance consequently must have taken place previous to the siege of Tyre, at latest⁴² 560 years before Christ;

³⁷ See Parkhurst in קר. Khadh.

³⁸ Mozel, vulg. Moozil, sept. Turmatim, Chald.

³⁹ וְדָן may be Vadan, or and Dan.

⁴⁰ Hazarmaveth, Havilat, Ophir, and Sheba, are all on the southern coast. Havilah is sup-

posed to be Chaulonitis in Oman; so David. is Daoud, in Arabic.

⁴¹ See Parkhurst in voce, and the catalogue in the present work, under kasia.

⁴² Coeval with Pisistratus, in Greece.

and

and this passage is therefore the most ancient record of the trade between India and Arabia, which can be called HISTORICAL; for though spices are mentioned frequently, that term is not decisive, as all the gums and odours of Arabia are comprehended under that name. Cinnamon, kafia, and calamus, alone prove an Indian origin; and notwithstanding these are noticed by Moses, David, and Solomon, the conveyance of them by caravans from the southern coast of Arabia is no where specified, till we arrive at this passage in Ezekiel.

V. 20. Dedan imported precious clothes for chariots. Dedan is introduced before (v. 15.): it may be the same country again, that is, Oman. But in this verse there is nothing to express whether these clothes are a manufacture, or an import from countries farther to the east.

V. 21. Arabia, and the princes of Kedar, purchased the fabrics of Tyre, and brought in return, lambs, rams, and goats. By the princes of Kedar may be understood, the sheiks of the tribes of the Sahara or Desert: they lived in tents; and these tents were black, made of felt, perhaps, as they still are. Kedar signifies black, and Bochart concludes from this, that they were Arabs burnt by the sun; but that it refers to the tents is evident from Canticles, i. 5. I am *black*, but comely⁴³ as the tents of Kedar. These, therefore, are the Arabs of Hedjaz; they have no fixed habitation, but wander throughout the Sahara⁴⁴; and their only wealth, besides what they obtain by robbery, consists in their flocks and herds. The produce of these they brought to exchange for the manufactures of Tyre.

⁴³ See the Song of Maifuna, wife of Moawiah, in Abulfeda, Reiske, p. 116. which presents a true picture of the manners of the

Arabs of the Desert.

⁴⁴ Whence afterwards they were called Saraceni.

V. 22. The merchants of Sheba and Raamah brought all kinds of the finest odours, precious stones and gold. Between Sheba (with shin) and Seba (with samech) there appears a distinction; for Sheba is a descendant of Shem, and Seba of Ham, Gen. x. Seba is, by some, taken exclusively for Sabæa, but both are in Arabia. The mistake, however, of one for the other, is natural, as there is a Sheba⁴⁵ also, great grandson of Ham. Mentioned, however, as Sheba is in this passage with Raamah, and connected as it is with Dedan (v. 20.), we may conclude that the great grandson of Ham is meant, the son of Raamah, who is son of Cush. Cush, likewise, is much more properly attributed to Arabia than Ethiopia, though frequently rendered by Ethiopia in our English Bible. If this may be esteemed a clue to guide us, we may place this Sheba, with Raamah⁴⁶ (Rhegma) and Dedan (Daden), towards the south-east angle of Arabia, that is, in Oman; where spices, drugs, odours, gold, and precious stones, might readily be conceived, partly to be the native produce of the province, and partly imported from India. Of precious stones there can be little doubt; and that gold should be brought from India, is a circumstance in conformity with the Periplus; for if the merchant carried silver to the Indian market, he had a considerable profit by exchanging it for gold.

V. 23, 24. Haran, Caneh, Eden, with the merchants of Sheba, Ashur, and Chilmad, traded in blue clothes, brodered work, or work of various colours—in chests of rich apparel, made with cedar and bound with cords.

⁴⁵ Compare Gen. x. 7. with the same Ragma in the Sept.; both advancing a step towards the Rhegma of Ptolemy, occasioned

⁴⁶ Raamah is Rema in the Vulgate, and by the γ gnain in רַעְמָה Rhayema.

That this expresses generally the trade with Mesopotamia and Assyria there can be little question; but Sheba mentioned again with these places, causes great obscurity. It may be too much to say, that these articles came up the Gulph of Persia, from Sheba or Oman to Babylonia and Mesopotamia, and thence by caravans to Tyre; but the chests of cedar bound with cords do certainly seem to imply some great caution adopted for the preservation of the clothes, which appear very precious, and highly ornamented. This caution seems more necessary for a conveyance over land, not only to prevent injury to the goods, but robbery likewise.

But Michaelis, as I learn from Archbp. Newcombe, goes counter to this whole supposition. With him, Haran is Haran-al-carin in Arabia; Canneh is the Kanè of Hadramaut; Eden is Aden in Sabêa, or Yemen; Sheba is a different place from Sheba in the verse preceding, and Chilmad is left undetermined.

But to me it appears, that in the preceding verses we have gone round the whole coast of Arabia, from west to east—from Hedjaz to Sabêa, Hadramaut, and Oman; and that we are now brought up the Gulph of Persia to the Euphrates and Tigris—to Babylonia, Mesopotamia, and Assyria; making thus a circle of that vast peninsula, and comprehending all the countries connected with Tyre to the east. Against such authority as Michaelis, I must not stand on my defence with my own forces, but call in auxiliaries, who have as high a claim to consideration as Michaelis himself.

The single name of Afshur, enumerated with the other places in this passage, is sufficient to convince us that they are not in Arabia, but Assyria; for Afshur is the son of Shem (Gen. x. 21.), joined

with Elam⁴⁷, Elymais, or Persia, and Aram, Aramêa, or Syria; and the invariable usage of Afshur for Assyria, does not admit of altering its application in this single passage. Haran and Eden are mentioned in conjunction (2 Kings, xix. 12. Bochart), and Haran, written Hharan or Charan in the original, is Charræ near Edeffa, celebrated for the defeat of Crassus in later times, and more anciently for the residence of Abraham (Gen. xi. 31.), when he left Ur of the Chaldeans, near the Tigris, in his progress towards the land of Canaan. (Bochart, d'Anville.) Eden, Adana, and Aden, is a name found indeed in Arabia and in other places, and its signification might readily be the cause of this; for the Garden of Eden is the Garden of Delight, and various places, possessed of a desirable situation, might assume this distinction; but joined with Haran, as it is here, and in the second book of Kings, it must be in Assyria, and no where else; for in the latter passage it is put into the mouth of Rabshekah, and Rabshekah was an Assyrian.

Canneh likewise is read Calneh by Grotius, Houbigant, and Bochart, (mentioned Gen. x. 10. Isaiah, x. 9. and Amos, vi. 2.) Michaelis himself acknowledges that the Chaldee interprets it of Nisibis in Mesopotamia, as others assume it for Ctesiphon. But without assigning it to a particular city, it is sufficient for the present purpose that it is in Assyria. The proof of this is express (Gen. x. 10.)—"Calneh, in the land of Shinar: out of that land went forth Afshur, and built Nineveh." If therefore Canneh be Calneh,

⁴⁷ Elymais is the original seat of the Persians in the mountains of Loristan, before they extended themselves in Persis and Susiana. Xenophon describes them in the Cyropædia, as originally a nation of mountaineers. Elymais, or Elam, extended its name with their conquests. The same mountains were possessed by the Cossæi in later times, and the Persians are sometimes called Kussii or Kissii by the Greeks.

this is conclusive; if it be not, this is the single passage of scripture in which it is mentioned, and it must be determined by the context. In this predicament stands Chilmad likewise: it is noticed here only; and if we have ascertained Afshur, Charan, and Eden⁴⁸, to be in Mesopotamia, in that country must both Canneh and Chilmad be placed.

In regard to Sheba there still remains a doubt; for though there are three Shebas or Sebas in Genesis, x. we cannot assign any one of them specifically to Assyria. I have offered a conjecture, that this Sheba may be in Arabia, on the Gulph of Persia, but it is mere conjecture; and if it be not admitted, this also, though now undiscoverable, must be assigned to Assyria with the others. But I apprehend that Sheba and Seba are in every other passage of the Scriptures applied to Arabia.

THIS Commentary, tedious as it must necessarily appear in some respects, will, I trust, be acceptable to every reader of curiosity. I have little merit but that of collecting, under one point of view, what is to be searched for in the detached passages of other authors. This might have been done by any one that had equal industry, or an equal desire of elucidating the commerce of the ancients; but it has not been done in a satisfactory manner by any one, as far as I am acquainted with the subject.

⁴⁸ Eden denotes a particular country or universally assigned to Mesopotamia. See Bochart, *Dissertat. de Paradiso terrestri*, p. 9. & "eastward in Eden." And Eden, by the Hardouin, *Plin. tom. i.* mention of Tigris and Euphrates, v. 14. is

In the prosecution of this inquiry, I have felt much interest in tracing the channels which commerce opened for itself, after the Tyrians had no longer access to the Red Sea, or the means of making the voyage to Ophir in their own ships; and I think it appears evident that they had a communication by land with all the three sides of Arabia, as well as with the countries farther east, through the intervention of Arabia, of Assyria, and Babylonia. That the commodities of the East will bear a long and expensive land-carriage, we may be assured by the caravans which traversed the whole continent of Asia, from China to the Mediterranean, in former ages; and those which pass between the same empire and Russia at the present day. That the Tyrians should be employed in the same concern, is natural, from our knowledge of their commercial spirit, and from the profits of their monopoly in regard to Europe. Whether the knowledge of these gains, or the thirst of conquest, induced Nebuchadnezzar to destroy this city, may be questioned; but I have already shewn that he had improved the navigation of the Tigris, and established a port on the Gulph of Persia. In this there could be no object but a communication with the East; and when the Babylonian empire sunk under the power of Persia, Tyre rose again out of its ruins, because the Persians were neither navigators or merchants, and because the fleets of Tyre were essential to the prosecution of the conquests of the Persians towards the West.

The destruction of Tyre is foretold by Isaiah (xxiii.) and Jeremiah (xxv. 22. xlvii. 4.), as well as by Ezekiel, who employs three chapters upon the subject, and enters far more minutely into particulars. In the twenty-eighth chapter he declares, the pride of this devoted

devoted city, whose sovereign boasted, "I am a God;" "I sit in the seat of God, in the midst of the seas;" "I am God" (v. 9.); and whose luxury made every precious stone his covering—the sardius⁴⁹, topaz⁵⁰, ruby, diamond, beryl, onyx, jasper, sapphire, emerald, and carbuncle, set in gold (v. 13.). The various rendering of these in different translations, will prove indeed the little dependance there may be on our knowledge of the Hebrew terms; but will still leave an impression, that they are imported from countries farther eastward, whence most of the precious stones still come, and will prove not only the value, but the direction of the commerce.

With these observations I close the review of this extraordinary prophecy relating to Tyre and its commerce; and if the *Periplus* affords us the means of tracing the countries it describes, by the specification of their native produce; equally appropriate, or more abundantly so, are the articles contained in the enumeration of the Prophet; the latter part of which coincides most essentially with the detail in the *Periplus*, and establishes the consistency and veracity of both.

⁴⁹ See Lamy, *Introduit. à l'Ecriture*, c. iv. p. 425. who has all that can well be said on the subject; but the Hebrew names of jewels are chiefly derived from verbs expressing radiance, and are therefore indeterminate; but *adem* is red, and may be the ruby; *jaskphè* has the sound of jasper, and *sapphir* is self evident. I wish **יָהָלֹם** *iabalom*, which Parkhurst derives from *halam*, to strike, could be ascertained for the diamond; and might we not search the root **הָלַל** *hal*, to move briskly, to irradiate, shine, or glisten. Halil, he adds,

denotes the Morning Star, from its vivid splendour.

⁵⁰ Tarshish is one of the jewels in the breastplate of the high-priest, which (compared with John, Rev.) Lamy concludes to be the chrysolite or topaz; but he adds, that some suppose it the *aigue marine*, or stone that is the colour of sea-water, and that in this sense Tarshish the jewel is applied to Tarshish the sea, p. 431. It is rendered chrysolite or topaz in this passage of Ezekiel.

To the public I now commit the result of my inquiries. In return for the labour of many years, the only reward I am anxious to obtain is, the approbation of the learned and ingenuous: if I fail in this object of my ambition, I must console myself with the reflection, that my own happiness has been encreased by attention to a favourite pursuit, by the acquisition of knowledge, and by the gratification of a curiosity almost coetaneous with my existence.

DISSERTATION III.

ON THE NAVIGATION AND COMPASS OF THE CHINESE,

BY

THE RIGHT HON. THE EARL OF MACARTNEY.

N. B. At p. 257, this Dissertation is mentioned improperly as No. 1.

IN my Journal of 11th August 1793, I gave some account of the junkas and shipping employed by the Chinese, and expressed my astonishment at their obstinacy in not imitating the ingenuity and dexterity of Europeans, in the built and manœuvre of their vessels, after having had such striking examples before their eyes for these 250 years past: but I must now in a good measure retract my censure upon this point; as, from what I have since observed in the course of my several voyages on the rivers and canals of China, I confess that I believe the yachts, and other craft usually employed upon them for the conveyance of passengers and merchandize, and the Chinese boatmen's manner of conducting and managing them, are perfectly well calculated for the purposes intended, and probably superior to any other that we, in our vanity, might advise them to adopt.

With regard to vessels of a different kind for more distant voyages, to Batavia, Manilla, Japan, or Cochin-china, I am informed that the Chinese of Canton, who have had frequent opportunities of seeing our ships there, are by no means insensible of the advantages they

they possess over their own; and that a principal merchant there, some time since, had ordered a large vessel to be constructed according to an English model; but the Hou-pou, being apprized of it, not only forced him to relinquish his project, but made him pay a considerable fine for his delinquency, in presuming to depart from the ancient established modes of the empire, which, according to his notions, must be wiser and better than those of the barbarous nations, which come from Europe to trade here. It is indeed, as I have before remarked, the prevailing system of the Tartar government, to impress the people with an idea of their own sufficiency, and to undervalue in their eyes, as much as possible, the superior invention of foreign nations; but their vigilance in this respect, and the pains they take for the purpose, evidently betray the conscious fears and jealousy they entertain of their subjects' taste for novelty, and their sagacity in discovering, and wishing to adopt, the various articles of European ingenuity for use, convenience, and luxury, in preference to their own clumsy, old-fashioned contrivances'. The government also probably apprehended danger from our teaching their subjects things of which they are now ignorant, but which they would be willing enough to learn. No precaution, however, can stand before necessity; whatever they want from us they must have, and every day they will want more, and elude all means of prevention in order to procure them. Cotton, opium, watches, and broad cloth, and tin, they cannot do without; and I have little doubt, that in a short time we shall have almost a monopoly of those supplies to them.

' I am assured that several smart young Chinese of Canton are in the habit of wearing breeches and stockings, à l'Angloise, in their own houses, and when they come abroad, cover them over with their usual Chinese accoutrements.

But to return from this digression to the subject of Chinese Navigation.—It is a very singular circumstance, that though the Chinese appear to be so ignorant of that art, and have neither charts of their coasts or seas to direct them, nor forestaff, quadrant, or other instrument for taking the sun's altitude, yet they have for many years past been acquainted with the use of the Mariner's Compass²; they even pretend that it was known to them before the time of Confucius. Be that as it may, the best writers agree that it was not known in Europe till the thirteenth century, nor brought into general use till the latter end of the fifteenth; but whether communicated by Marco Polo on his return from China, or by some other adventurer, remains undecided. The plan of it, according to its division into thirty-two points, seems to indicate it rather an intended European improvement upon something already discovered, than to be an original invention. The Chinese Compass being divided only into twenty-four points, it was easy to add eight more; and yet, even with this improvement, the European Compass in one respect labours under one disadvantage when compared with the Chinese one; for in the latter the calculations are much easier, each point answering to fifteen degrees, without odd minutes.

Whoever it was that originally introduced the Mariner's Compass, as now used, of thirty-two points, could not have been extensively versed in science; for, long before the discovery of the magnetic needle, philosophers of all nations had agreed to divide the circle into 360 equal parts or degrees, a degree into 60 minutes, a minute into 60 seconds, &c. &c. The reason, I presume, of the general

² Ting-nan-chin, or the South-deciding Needle.

adoption and continuance of those numbers, is the convenience of their being divisible into integral parts by so many different numbers. The points of our mariner's compass, however, happen not to be among these numbers, for 360 divided by 32, give $11\frac{1}{4}$ degrees, so that, except the four cardinal points and their four bisecting points, all the others converted into degrees, will be involved with fractions, a circumstance of great inconvenience, although thought immaterial by seamen, who have tables for every minute of a degree ready calculated to their hands. Now, it is submitted, whether the Chinese, without any pretensions to science, have not fallen upon a more convenient division of the card of their compass, than the Europeans have adopted, with all their pretensions to science. It is quartered by the four cardinal points, in the same manner as ours, and each of these is subdivided into six points, making 24 points in the whole card, so that every point contains 15 degrees, or the fifteenth part of 360.

After all, perhaps a division of the card into 36 points would be found more advantageous than any other, for then every point would be equal to ten degrees; half a point equal to five degrees, &c. &c. and so on.

1897. 10. 15

October 10, 1891. To the Hon. Sec. of the Interior, Washington, D. C.

which is now in the hands of the

THE ORIGINAL OF THIS MANUSCRIPT IS IN THE

Handwritten text, likely bleed-through from the reverse side of the page. The text is written in a cursive script and appears to be a list or inventory of items, possibly related to the "Kleinigkeiten" (miscellaneous items) mentioned in the header. The text is partially obscured by the binding and the edge of the page.

[Faint handwritten text, likely bleed-through from the reverse side.]

to be put into effect. At the same time, it would be difficult to

THE END OF THE WORLD

THE UNIVERSITY OF CHICAGO

13

схлестом. Бондэ, сэр, вы не можете не видеть, что это не так.

containing the names of the persons who have been

Don't be afraid to be afraid. Don't be afraid to be afraid.

Post Office and Telegraph Office

1891





AFRICA

From the Planisphere of Fra MAURO 1459
preserved in the library of San Michael di Murano at Venice
containing the report of a Ship from India having passed the
extreme point South 2000 miles towards the West & South West in 1420

N. B

Diaz passed the Cape of Good Hope in 1486
Gama in 1497 who first reached India.

The dotted lines of Rivers are green in the original, the lines not dotted
are blue. the green are perhaps the conjectures of the Author.

Names introduced but not mentioned by the Author have an Asterisk *

The original contains a multiplicity of names not inserted in this
copy & not necessary for understanding the Circumnavigation.

Published according to Act of Parliament by W. Vincent 9th June 1806.

Walker sculp.



M E M O I R
OF THE
MAP OF FRA MAURO,
IN THE
MONASTERY OF ST. MICHAEL DI MURANO, AT VENICE,
So far as it relates to the Circumnavigation of Africa.

[This Memoir may be considered as a fourth Dissertation to be added to the Sequel of the Periplus, Part the Second, and is numbered accordingly from Page 560 of that Work.]

THE desire of obtaining a faithful copy of this celebrated Planisphere originated from a variety of causes, among which the principal were these:—

- I. First, That an opportunity would be afforded of examining whether this were the map described by Ramusio,^{*} and by him considered as appropriate to the Travels of Marco Polo.
- II. Secondly, To establish the authenticity of the map itself, and its existence antecedent to the voyages of Diaz and Gama.

^{*} In the advertisement prefixed to the Travels of Marco Polo, p. 17.

III. And thirdly, To ascertain the extent of the information it contained relative to the termination of Africa in the south.

But if the attainment of the object was desirable, the precarious state of Venice itself, and the probable injury the map might have suffered during a lapse of three hundred and fifty years, urged the necessity of dispatch as indispensable.

Founded on these motives, an application was made in the year 1804 to Lord Hobart, then Secretary of State for the foreign department, who, with the liberality congenial to his disposition, and the alacrity of a protector of the sciences, directed the necessary enquiries to be made without delay.

Mr. Watson, who had resided at Venice forty years; and who was the English Consul in that city, was consulted. That gentleman was well acquainted with the map, and had frequently visited it as an object of curiosity; he offered the services of his nephew, Mr. Frazer, a miniature painter by profession, to undertake the work, and stated that the expence of a fac simile copy could not be less than an hundred and fifty pounds.*

No sooner was this intelligence received, than a subscription was opened for the accomplishment of the design, and in a few days filled, by the contributions of the East India Company, Earl Spencer, the Earl of Macartney, Lord Hobart (now Earl of Buckinghamshire), the Bishop of Durham, Mr. Strahan, Printer to His Majesty, and the Editor of the *Periplus*.

The artist was directed to proceed immediately, and in nine months completed his copy of the Planisphere, which, with all its

* The expence of conveyance, fitting up, and further remuneration of the artist, amounts to more than 200*l*.

errors,

errors, is a most beautiful specimen of geography, and exhibits at one view all that was known on this subject in the fifteenth century.

The copy, when finished, was transmitted to the English Ambassador at Vienna, in whose hotel it remained for many months, being too bulky for an ordinary conveyance, and too long forgotten from the pressure of business far more important; but at Vienna it was found, after escaping the ravages of the French army, by the artist who had executed it, and who, by a coincidence of singular circumstances, had the good fortune to bring it himself to the hands of the subscribers.

The connexion of this work with the plan of the editor, arises naturally from the construction of his Commentaries on the Voyage of Nearchus and the Periplus of the Erythrean Sea; in these two works he undertook not only to elucidate the narrative, but to embrace all the leading causes which contributed to the better information of the moderns;—in short, to trace the PROGRESS OF DISCOVERY from the commencement of it by Nearchus, to its completion by the voyage of Gama.

After a brief enumeration of these particulars we may proceed to consider:

I. First, whether this was the map noticed by Ramusio, and supposed by him to be drawn up for the elucidation of the Travels of Marco Polo.

Upon the commencement of this enquiry it is necessary to have it understood, that the Planisphere of Fra Mauro was never intended by the author for the purpose of tracing the route of his countryman: it contains indeed many particulars deduced from his

Memoir, but without any acknowledgement of the obligation³. It is a general map of the known world, formed upon the Arabian principle, and its outline is represented by the sketch I have given from Al Edrissi, in the Appendix to the first part of the Periplûs; that is, a circle surrounded by a circumbient ocean; or if considered as a hemisphere, it is the egg⁴ floating in a basin of water.

I ventured to predict this to some of my subscribers before its arrival, and to shew that consequently, if the three Continents were encompassed by this mare tenebrosus of the Arabs, Africa must have a termination on the south, as well as Lapland on the north.

That the Atlantic⁵ communicated with the Indian ocean was a persuasion universally admitted from the earliest ages by all the geographers, except Ptolemy; he indeed carried round his Southern Continent from the extremity of Africa till it joined the empire of China: the Arabians, who followed Ptolemy, did not copy him in this respect, but the termination of Africa in Al Edrissi is protracted eastward till it ends under the same meridian as China; the map of Marin Sanuto⁶ in 1321, which is likewise from an Arabian original, has the same inclination, but not to the same excess; and the planisphere of Fra Mauro has a similar turn to the east, but confined

³ The Memoir of Father Mirtarelli, Abbot of St. Michael di Murato, in 1779, asserts this; and upon a scrupulous examination of the map, I find no reason to contradict his assertion.

⁴ It is not by this intended to assert, that Fra Mauro designed it for this half egg of the Arabs; he knew well that the earth was a sphere.

⁵ It is on this foundation that the Phœnician voyage is recorded by Heródotus, and the

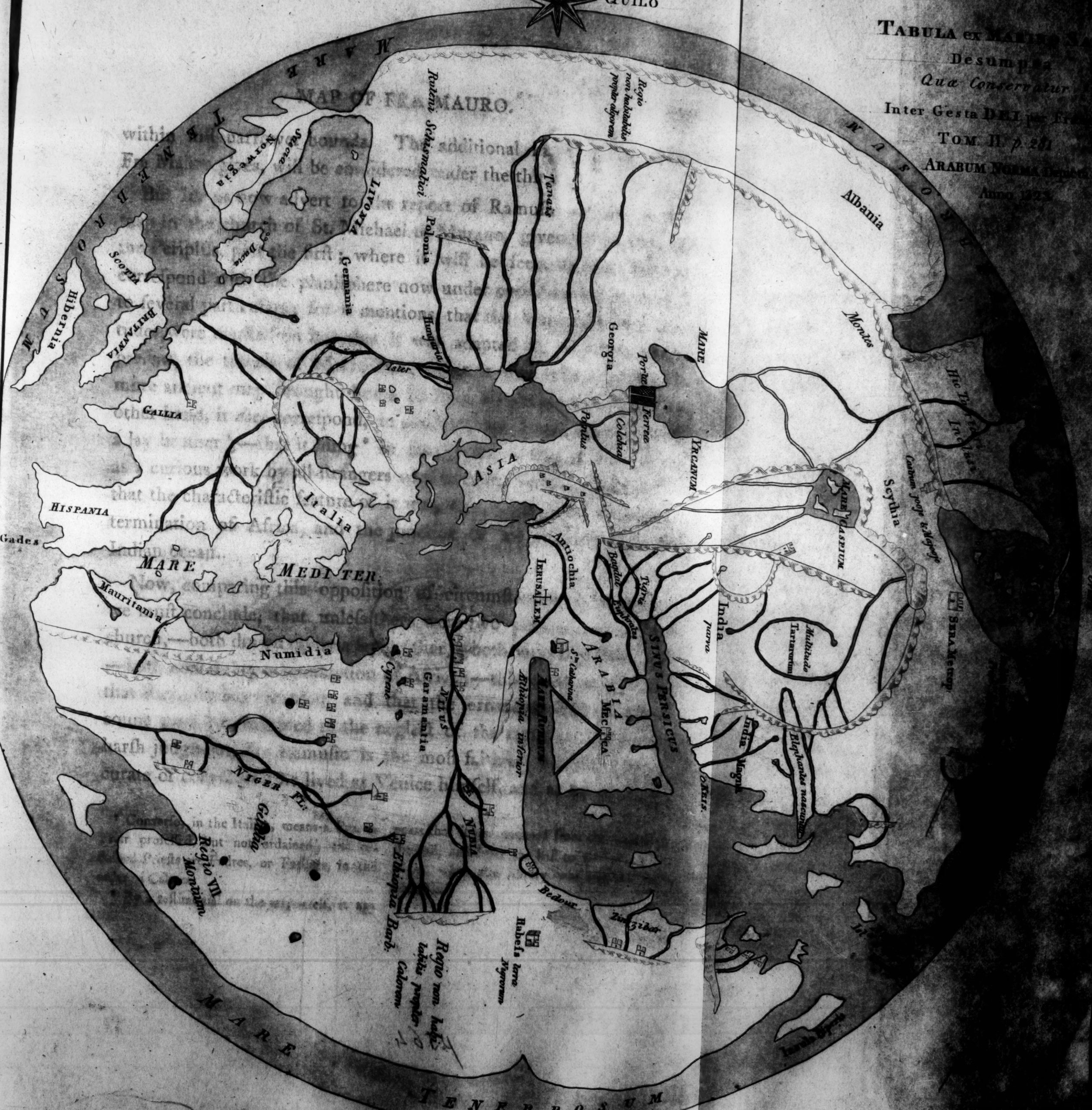
the testimony of Aristotle is in conformity. Ἡ μὲν Ἑνδεὰ φαίνεται κατὰ μικρὸν (sensim) κοινωῦσα πρὸς τὴν ἐξ ὧν ἤλκω θάλασσαν. Arist. ii. Meteor. i. cited by Wesseling ad Diodor. p. 23. Scylax, Pliny, and Strabo bear the same testimony.

⁶ The account of this very curious map will be found in the Periplûs, part ii. p. 323. I have caused a sketch of it to be engraved and inserted here.

within



TABULA ET MARIS SANCTI
Desumpta
Qua Conservatur
Inter Gesta DEI per Franciscum
TOM. II. p. 201
ARABUM FORMA Depicta
Anno 1273

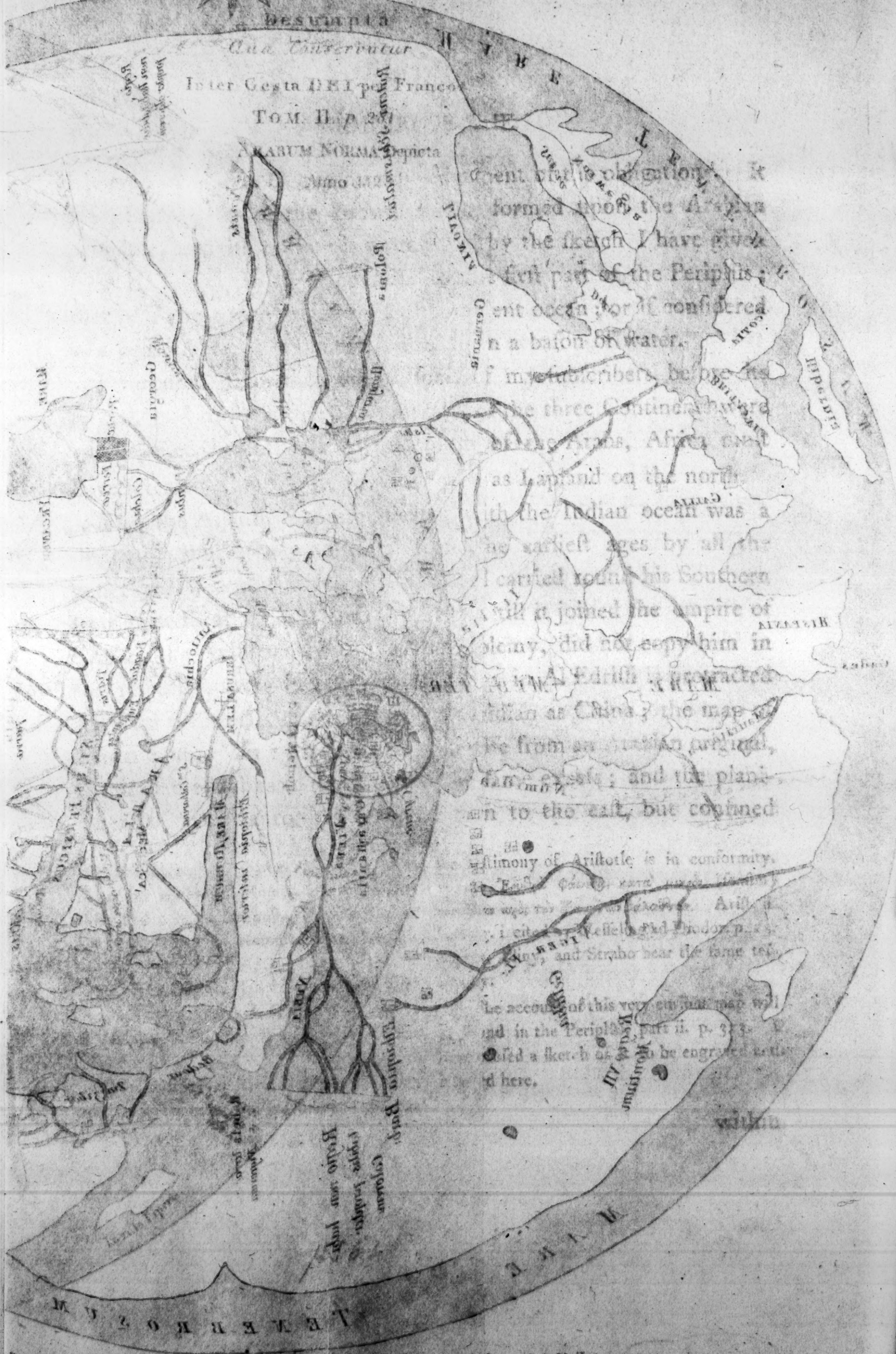


Published according to Act of Parliament

London

by W. Vincent 7th May 1806

OMIO A
TOM. II. p. 207
MARINO SASUTO



ent star is obligation. It
formed from the A. 1. 1. 1.
by the sketch I have given
first part of the Periphs.
ent ocean; for it considered
in a basin of water.
I myself, before the
the three Continents, were
of the Arabs, Africa, and
as Lapland on the north.
the Indian ocean was a
my earliest ages by all the
carried round his Southern
will it joined the empire of
olony, did not copy him in
and I have drawn a projected
Indian as China; the map of
be from an Arabian original,
and the plan
to the east, but confined
testimony of Aristotle is in conformity.
and in the Periphs. part ii. p. 313.
I added a sketch of the world as engraved
here.

within still narrower bounds. The additional information which Fra Mauro gives, will be considered under the third head.

But let us now advert to the report of Ramusio relative to the map in the church of St. Michael di Murano, given at p. 201, of the *Periplûs*, part the first; where it will be seen, that it *does not* correspond with the planisphere now under consideration in regard to several particulars; for it mentions, that the longitudes and latitudes were marked on it,—that it was adapted to, or meant to represent, the travels of Marco Polo,—that it was reformed from a more ancient map brought home by Marco Polo himself.—On the other hand, it *does* correspond, in noticing that it was drawn up by a lay brother⁷,—that it hung⁸ in the church,—that it was visited as a curious work by all strangers who came to Venice; and finally, that the characteristic feature of it was, that it exhibited a southern termination of Africa, and the junction of the Atlantic with the Indian ocean.

Now, comparing this opposition of circumstances, it seems as if we must conclude, that unless there were two planispheres in the church,—both drawn up by a lay brother,—both visited by strangers,—both containing a termination of Africa;—this must be the map that Ramusio has recorded, and that the erroneous side of the account must be attributed to the neglect of the reporter. This is a harsh judgment, for Ramusio is the most faithful, correct, and accurate of collectors; he lived at Venice himself, and as he could not

⁷ Converso, in the Italian, means a Fra, or Friar professed, but not ordained; the ordained Priests are Padres, or Fathers, in the order of Calmes. appears that it was removed from the church to the hall, and from the hall to the library, in 1655, when the library was repaired and beautified.

⁸ By a testimonial on the map itself, it ap-

want opportunity of ascertaining the fact, neither can we well attribute to him the want of curiosity or investigation. But it is very extraordinary that Ramusio⁹, who lived within fifty years of Fra Mauro, should never have mentioned him by name, but only noticed the author as a lay brother of the order of Câlmes; notwithstanding this, Mauro was so celebrated as a cosmographer in his day as to have a medal struck in honour of him; and added to this, the planisphere he has left us, is consecrated to the honour of the Republic. This neglect cannot be imputed to jealousy, for his rival was no more; neither is it more remarkable than that Fra Mauro, who has copied so amply from Marco Polo, should never mention his name. Considering, however, the enquiry into these particulars as unnecessary, I cannot suppress my own opinion, which is, that this was the map intended by Ramusio, but that his information is not correct. And in addition to my own testimony, I may subjoin, that in a memoir of this map, drawn up by Father Jo. Benet Mirtarelli, Abbot of St. Michael di Murano in 1779, and communicated to Lord Hobart by Mr. Stuart, it is throughout admitted that this planisphere, and no other, is the one designated by Ramusio, and that his account of it is erroneous.

It is much to be regretted that we have no genuine map that can be traced to Marco Polo himself,—for that which was in the Doge's palace, (a copy of which I received from Lord Macartney,) is by internal evidence later than 1550; it is not formed on Arabian principles, it has the peninsula of India, and that of Malacca, in conformity to the Portuguese discoveries; it has the Eastern Islands and the Moluccas almost correct; and the only trace of its deriva-

⁹ He died in 1557, at 72 years of age.

tion from an ancient source, or an age prior to Gama, is, that the first country east of China is Spain; proving, in this one instance at least, that it was copied from some authority previous to the discovery of America.

II. Under the second head we are to enquire, whether the work we have is genuine? whether it were really executed by Fra Mauro? and whether it existed previous to the voyage of Gama?

The proof of this is very short, for the age of Fra Mauro is perfectly ascertained in the history of the monastery; his excellence as a cosmographer is fully established by the medal struck in honour of him; the inscription on which is,—*Frater Maurus Monachus Camaldunensis Sancti Michaelis de Muriano Cosmographus incomparabilis*: the date on the planisphere is 1459, and the internal evidence in the work itself is in complete harmony with the date. Added to this, we know by the testimony of the Portuguese, that Alfonso V. or Prince Henry, who died in 1663, received a copy of this map from Venice, and deposited it in the monastery of Alcobaça, where it is still preserved.¹⁰

It is in fact calculated for the furtherance of Prince Henry's designs; for it asserts that an Indian ship had been carried 2000 miles west beyond the extreme point of Africa, and that the Portuguese navigators had sailed 2000 miles south, from the Straits of Gibraltar; by this implying, that the junction of these two lines could not be a labour of very great difficulty, and that the prosecution of the discovery must soon lead to the attainment of the object proposed. The sums likewise paid for the copy by Alfonso V.¹¹ king of

¹⁰ See *Periplus*, Part i. p. 199. where this lived till 1480. The whole of his reign therefore is prior to Díaz and Gama, and includes

¹¹ Alfonso V. began to reign in 1438, and the age of Fra Mauro.

Portugal, and the account of expenditure is still preserved in the monastery of St. Michael; the whole memoir of Abbot Mirtarelli, confirms this, and puts the question out of doubt.

III. This brings us to the third head, in which we are to shew what the Planisphere actually contains relative to the termination of Africa on the south.

This is in reality the prime curiosity and great merit of the work, for its defects in other respects are in perfect harmony with the ignorance of the age; nay, there are some errors which, if the author had followed Ptolemy, as he professes to do, he could not have committed. His failure in regard to India is inexcusable, for though Ptolemy might have misled him, as he has, in regard to curtailing the peninsula of India, and reducing both coasts nearly to one parallel of latitude, still Ptolemy has an Indus and a Ganges not so much distorted as to produce the enormous aberration of Fra Mauro; for he places Dehly on a stream which comes towards the coast of Malabar; he then carries an Indus into the bay of Bengal; another river running down to Ava, Pegu, and Siam; and to the eastward of this a Ganges. This is so wild an error, that it is not worth seeking for its origin. There are a variety of misconceptions in other parts, though none so extravagant as this. But not to insist on these, let us now advert to the termination of Africa, the principal object in view, when it was proposed to obtain a copy of this work, and the leading cause for introducing it to the notice of the reader.

Longitude and latitude, though the author frequently mentions, he does not apply; he fixes the centre of the *habitable* world near Bagdat, and would willingly have fixed it at Jerusalem if he could have found the means.

Asia

Asia and Europe he defines rationally, and Africa, so far as regards its coast on the Mediterranean. He traces the Nile up into Abyssinia, of which he has two heads, one towards the east, from the Arabian accounts, where several streams unite into three lakes;¹² and another western one, which *he* calls Ab-avi, as well as Bruce, which winds round, and after passing through a lake resembling Dembea, returns again to the north like that river; but both these sources partake less of the errors of Ptolemy and the Arabs than might be expected; they are not carried quite so far south,¹³ and on this head it is highly probable that he received his information from the missionaries and merchants who had been in Egypt, and perhaps farther inland.¹⁴ This he professes to be the source of his intelligence, and it appears rational, from a view of his work; but then, as he knew nothing of Africa more remote than this region, he extends Abyssinia down to the south, till it is almost in contact with what *we* should call the country of the Hottentots.¹⁵

On the eastern coast, however, of this continent, he has a different system; for having found, as we may suppose, in Marco

¹² This is the precise fact also in the Arabian map of Al Edrissi, and Fra Mauro copies him likewise in making the stream pass through a mountain, with the cataracts, &c. &c. This source, by its relative situation, ought to be the Tacazzè, but it is remarkable that the Mareb river of Bruce, which joins the Tacazzè, actually does sink under ground and rise again.

¹³ The sources of the Nile, at least Bruce's Nile, are in latitude 12° North, those of Ptolemy 12° South, and those of Al Edrissi still much farther South.

¹⁴ Whence the author derived his knowledge

of Abyssinia is extremely dubious. We know of no Missionaries who penetrated into that country previous to the Portuguese in 1520, sixty years later than the date of the Planisphere.

¹⁵ It is very remarkable, that his termination of Abyssinia on the south is formed by a river named Galla, which proves that the Gallas, who have been the invaders and desolators of Abyssinia for these 300 years, even in that age had the appellation, and that their country was placed to the south. In fact, the intelligence of the author, in some particulars, is as singular, as his errors are in others.

Polo, that there was a great island called Zanguebar,¹⁶ 2000 miles in circumference, he actually carries an arm of the sea between this island and the continent, in an oblique direction, commencing at Magadoxo, and issuing at the point where we should fix the Cape of Good Hope. This island (perhaps from a corruption of the Hindoo, *Dweep**) he calls *Diab* three times over, and the termination of it on the south he styles Cape Diab, making it the extreme point of Africa; and adding, in *one place*, that nothing ever passed it, in *another*, that an Indian ship, in the year 1420, had been carried 2000 miles to the westward of it in the space of 40 days, and was 70 in returning.

That the island Diab was in one sense the Zanguebar of Marco Polo, is evident, for on the eastern coast of it we have Magadoxo, Zanguebar, and Sofala, in due order;¹⁷ we have likewise, inland, a province abounding in gold, which we may suppose to correspond with Monomotapa. But the last place mentioned on the east is Macdefin,¹⁸ approaching so nearly to the Madaftar or Magaftar of Marco Polo, as to induce a suspicion that Diab may have been confounded with Madagascar.

It is not meant to assert, however, that this suspicion is well founded; for Fra Mauro has an island Mahal, where he says the

¹⁶ Zanguebar is in reality a small island on the coast, in lat. 6. south, and the continent opposite to it takes its name from the island: it is this continent that M. Polo has transformed into an island again, 2000 miles in circumference, perhaps from Arabian authority, for the Arabs apply the term to many regions which are not islands.

* For this curious and rational conjecture I am indebted to Mr. Hastings.

¹⁷ Quiloa, written Chelua, Brava, and Mombaza, are inserted, but not in due order, they are all below Sofala, and Sofala is apparently repeated twice.

¹⁸ I am not without doubt respecting this Maedfin. I have sometimes suspected it may have been intended for Mofambique.

pirates used to rendezvous, and where there was plenty of amber; this last particular Marco Polo attributes to his Madaſtar," but the Mahal of F. Mauro is a ſmall iſland, and the Madaſtar of M. Polo is 3000 miles in circumference, in which again it agrees better with Diab. At Diab, likewise, Fra Mauro mentions the fable of the Ruck, which M. Polo notices as exiſting in Madaſtar, and this increaſes the probability in favour of the conjecture that Madagascar is confounded with the continent. But, upon the whole, the narrative of M. Polo is far more conſiſtent with truth than Fra Mauro's Planisphere; and his account of the violent current in the Moſambique channel is a moſt illuſtrious geographical verity, far ſurpaſſing the information of the age he lived in.

Let us now proceed to the ſpecific pre-eminence of the Planisphere, in which it ſurpaſſes all the intelligence received from prior geographers. It has been obſerved already, that this work was compoſed with a view to encourage the Portuguese in the proſecution of their voyages to the ſouth; two paſſages, which may be adduced from the rubrick in the map,²⁰ will ſet this in the cleareſt light. The firſt is inſerted at Cape Diab, the termination of Africa on the ſouth, beyond which no navigators paſſed, and where was the commencement of the Mare tenebroſum; "but here," ſays the author, "about the year 1420, an Indian veſſel or junk, which was on her paſſage acroſs the Indian ocean to the iſlands of men and

²⁰ It is perhaps the beſt reaſon for thinking that Mahal is Madaſtar; for the northern cape of Madagascar is called at this day Cape Ambra.

²¹ The Planisphere is ſo ample as to admit of much writing throughout, which may be conſidered as the Memoir to the Map. The

letters are uſually in red ink, and properly Rubrick; but the black bear the ſame title. I have not yet found a reaſon for the preference of the one or the other; perhaps variety or caprice was ſufficient reaſon with the author.

The copyiſt ſays the hand is the ſame throughout.

"women," was caught by a storm, and carried 2000 miles beyond Cape Diab to the west and south-west; and when the stress of weather subsided, was seventy days in returning to the Cape:" he then mentions that the vast bird called the Ruck was found here, which is so strong as to carry up an elephant in its talons," and then to dash it to the ground, and feed upon its flesh.

This therefore the author considers as full proof that Africa was circumnavigable on the south. The second Rubrick we are to cite is inserted on the western coast of Africa, and contains the following particulars:—

"Many have thought, and many have written, that the sea does not encompass our habitable and temperate zone" on the south; "but there is much evidence to support a contrary opinion, and particularly that of the Portuguese, whom the king of Portugal has sent on board his caravels to verify the fact by ocular inspection. These navigators report, that they have been round the continent more than 2000 miles to the south-west beyond the Straits of Gibraltar that every where they found the coast not dangerous, with the soundings good, and convenient for navigation, and with little danger from storms. Of these regions they have framed new charts, and given new names to the rivers, bays, capes, and ports. I have many of these drafts in my possession, but if any one should question the evidence of those who have actually visited these coasts, much less would he credit those

" These islands are called Nebila and Magla; the fable is in Marco Polo, and probably Arabian, that the men passed to the women for three months in the year, and then returned to their own island with the boys

leaving the girls behind. Nebila appears in Sanuto's map.

" The instance is an elephant likewise in Marco Polo.

" He means the habitable world.

" who

" who are not navigators, but writers only on the subject, and receive their information from others.

" I have likewise talked with a person worthy of credit, who affirmed that he had been carried ²⁴ in an Indian ship by stress of weather, in a course out of the Indian ocean, for forty days, beyond the Cape of Soffala and the Green Islands, towards the west and south-west,²⁵ and that in the opinion of the astronomer on board,²⁶ (such as all the Indian ships carry,) they had been hurried away for 2000 miles. And this report is at least more credible than the assertion of others, who mention a progress of 4000 miles [in the same direction.] In short, without all doubt we may affirm, that the sea encompassing this southern and south-eastern part of the world is navigable; and that the Indian sea is ocean, and not a lake (like the Caspian); for this is constantly asserted by all those who navigate this sea, or inhabit these islands."

By comparing these two passages together, the natural conclusion is, that the design of the author was to encourage the Portuguese in the prosecution of their voyages to the south, and to assure them of the certainty of success in getting round the continent, by asserting that this Indian ship had actually penetrated into the Atlantic. But still it is to be observed, that the two accounts are at variance: the first says, the passage was made round Cape Diab, at the termination of Africa; the second asserts that it was beyond Cape Sofala and Prafum,²⁷ which is fifteen degrees north of that termination; and a

²⁴ Scorzo.

²⁵ Perhaps the Prafum of Ptolemy and the Greeks.

²⁶ In another Rubrick he writes expressly, that the Indian ships had no compass, but

were directed by an astronomer on board, who was continually making observations. In this he seems to follow Nicola di Conti.

²⁷ Isole Verde.

course winding round the continent from Sofala to Cape Agulhas²⁸ could not be less than two and twenty degrees, that is, upwards of thirteen hundred geographical, or fifteen hundred British miles; if, therefore, there is no exaggeration in the account of the astronomer, this vessel might have passed five hundred miles beyond Cape Agulhas to the west. One reason more especially which may persuade us that the 2000 miles are rather to be reckoned from Sofala than Diab is, that a south and south-westerly course would actually carry them towards Cape Agulhas, whereas from Diab, such a course would have carried them 2000 miles into the open sea, leaving the continent behind them in the north-east. Another reason for reckoning from Sofala is, that it was the last place on the eastern coast to which the Indian ships traded, and if a vessel, making this port, happened to overshoot it, she might easily be hurried further south by the violent current in the Mosambique channel, which sets all round the coast to Cape Agulhas; and in the force of which, if a vessel was once caught, she might well be seventy days in returning on the same track which she had before passed in forty, when going to the south.

These reasons induce me to think that the second Rubrick is the more correct, and that the 2000 miles are to be reckoned from Sofala. I have stated the whole fact as it may be viewed in either light, and leave the determination to the judgment of the reader. In either case, if there is no exaggeration, the extreme point of Africa was really passed, and the discovery ascertained.

Whether the course of this Indian vessel be true or false does not enter into the consideration; the fact is possible, and even probable;

²⁸ Cape Agulhas is the extreme point of Africa, almost a degree south of the Cape of Good Hope.

and

and if such a report was brought to Fra Mauro, the insertion of it in his map was not only allowable, but consistent with the design of his work composed for the King of Portugal and the encouragement of his subjects. It is reasonable to suppose that the author did not foresee that the consequence of the discovery would be a fatal stroke to the commerce of his country, otherwise we may be assured, that neither his own patriotism, or the interests of Venice, would have suffered such a communication to have been transmitted.

Let us next observe, that Fra Mauro asserts he had his information from a person of credit who actually sailed aboard an Indian ship. In this there is no inconsistency, for the merchants of Venice, and other Italians who traded to Alexandria, did in several instances pass down the Red Sea, and penetrate into India. Nicola di Conti,²⁹ in 1420, sailed in an Indian ship, and gives much the same account of Indian navigation; the date of 1420 is a remarkable coincidence, but di Conti says nothing in his own memoir of a ship being carried round the termination of Africa, otherwise I should have supposed that this curious traveller had actually been the origin of Fra Mauro's report: at present it only goes to prove that several Italians did pass into the Indian ocean, and did sail on board the ships of the natives, from some one of whom the author might have received his information.

Another observation occurs upon reading these two accounts, from the mention of the 2000 miles that this Indian ship had passed, and

²⁹ Nicola di Conti was a Venetian: he went by way of Damascus to Bagdat, Basra, and Ormus: he was long absent, and after his return received absolution from the Pope in 1444. I may place his going out to India too early, but the date of his return in 1444 comes so near the time of Fra Mauro, whose map was completed in 1459, that he might easily have consulted him. See Ramusio, tom. i. p. 338.

the 2000 miles that the Portuguese navigators had discovered from the Straits of Gibraltar, it is manifest that Fra Mauro thought that the intermediate line which would join the two courses was neither extensive or attended with great difficulty. But let us advert to the date of the Planisphere 1459, from which we may ascertain the extent of the progress of the Portuguese; for it is exactly four years before the death of Prince Henry in 1463, the limit of whose discovery we fix at Rio Grande, though Galvan informs us, that a single ship or two had run down below the equator. Rio Grande is in latitude 11° N. and the Straits of Gibraltar in lat. 36° N. The Portuguese had therefore advanced 25 degrees to the south, that is, 1500 geographical, or 1750 miles British, which, with the circuit of the coast, may well be estimated at 2000 miles. But as Cape Agulhas is in latitude nearly 35° south; 36° north and 35° south amount together to 71 degrees, equal to 4970 British miles; so that if we reckon the 2000 miles of the Indian ship from Cape Diab, and the 2000 miles of the Portuguese from the Straits of Gibraltar, the intermediate line would be 970 miles, exclusive of the winding of the coast; or if we reckon the 2000 miles of the Indian ship as commencing from Sofala, we must add 15 degrees in a right line, or 22 degrees of coast, as the space between the discovery of the Indians and the Portuguese: that is, in one instance we must add 1050 to 970, making 2020 miles British, and in the other 1540 to 970, amounting to 2510 miles of the same description.

Different as this may seem from the estimation of Fra Mauro, and protracted as the intermediate line between the two discoveries may appear, even if this had been known in the court of Portugal, the difficulty would not have been thought too great to surmount. The
Portu-

Portuguese had already extended their discoveries 2000 miles, and an additional progress of 2500 would have been deemed much easier to complete, than the first 2000 they had advanced. But they did not calculate upon so ample a space; the estimation of Fra Mauro evidently diminished their apprehensions, and his error in this respect manifestly contributed to the prosecution of their designs; as the error of the ancient geographers in approximating China to Europe, produced the discovery of America by Columbus.

With these considerations we may close our account of Fra Mauro's Planisphere, so far as it regards the circumnavigation of Africa: and when we reflect that Diaz sailed from Lisbon in 1486, only twenty-seven years after the date of this Planisphere, we cannot withhold a due share of praise and admiration from a geographer, who contributed so essentially to the discovery; neither can we sufficiently commend the wisdom of Alphonso V. who joined theory to practice by the purchase of such a work; or the fortitude and perseverance of his people, who completed for the world the greatest discovery that navigation has to boast.

The remaining parts of the Planisphere are not connected with these great designs, neither do they contribute much to elucidate the navigation of the ancients. The merchant of the Periplûs had far better conceptions of the eastern coast of Africa and the Peninsula of India than are to be found in this work of Fra Mauro; for he seems, by his own confession, to have consulted missionaries, voyagers, merchants, and travellers, more than the works of authors ancient or modern; and yet, with all its errors, it is a performance of immense labour, persevering research, and great curiosity of collection: the Rubrick inscribed upon it amply supplies the place of a memoir, and

almost in every instance suggests a variety of reflections to those who are admirers of the science. It is likewise a geographical picture of great beauty and magnificence: it does honour to the noble city to which it was dedicated, which was once the Tyre of the western world, but has now fallen, and without a thirteen years siege, by another Nebuchadnezzar.



N. B. The Planisphere is a circle of five feet eight inches Venice measure, nearly six feet seven inches English; the corners of the table are filled up with four small circles, representing, 1. The Ptolemaic system and the spheres. 2. The system of the elements. 3. The circles described on the terrestrial globe. And 4. A miniature of our first parents in the act of being driven out of paradise, with the four rivers of that garden. It was found in such a state of preservation, that very little of the original has been left out as illegible; and the testimonies from Venice of the fidelity of the copy are perfectly satisfactory. The Rubrick was written in Gothic letters and full of abbreviations; these the artist (Mr. Frazer) has supplied, and reduced the letter to a modern form, by which he has rendered the examination far more pleasurable to the eye, and far more easy to the apprehension. In short, he has completed the work highly to his own honour, and to the satisfaction of his employers: and it is but justice to add, that the specimens he has produced of his excellence as a miniature painter place him high in his profession, and in hopes of contributing to his success at home, I think myself bound by a debt of gratitude to advertise the public, that his address is No. 5, Suffolk-street.

APPENDIX

A CATALOGUE *of the* ARTICLES *of* COMMERCE

MENTIONED IN

THE DIGEST OF THE ROMAN LAW,

AND IN

THE PERIPLUS OF THE ERYTHREAN SEA.

AFTER the former part of this Work was published, a recommendation occurred in the Indian Disquisitions of Dr. Robertson (p. 58.), to compare the Roman law in the Digest with the articles of commerce in the Periplus. This task I undertook with great readiness, and had the satisfaction to find the concurrence so general, as to encourage me to pursue the comparison throughout. The conclusion derived from the performance of this task was a conviction that the digest was the best commentary on the Periplus, the most ample proof of its authenticity, and the most complete illustration of the Oriental Commerce of the ancients. This consideration led me to the desire of consolidating the two catalogues into one, in which I might centre the proofs, and at the same time have an opportunity of correcting the errors I had been led into by my dependance on classical authorities, without a sufficient knowledge of Natural History. To this cause, I trust, will be imputed, the defects of the former catalogue; and, though the same cause may still operate,

rate, in a degree, I have now, however, been assisted in removing many misconceptions by the kindness of Dr. Falconer of Bath, and by that of his Son, who is a fellow-labourer with me in the illustration of ancient geography, and the translator of the *Periplus* of Hanno. To both of them I was known only by my publications, and unsolicited by me, both proposed several corrections which I am happy to adopt. If the object of an author is the investigation of truth, he will receive all friendly corrections with gratitude, rather than defend his errors with pertinacity or ill-humour. I am sensible also, that I stood in more need of advice than many others might have done, because I came to this office with less information in Natural History, than was requisite for the undertaking. This, perhaps, might have been a sufficient reason for declining it altogether; but I wished to elucidate the author that I had before me; and, I trust, that what I have done, will be acceptable to every reader who is not deeply versed in Natural History himself.

N. B. When an article in the following catalogue is found both in the Digest and the *Periplus*, it will be marked D. P.; and with one of those letters, when it occurs only in one of them.

When the observations are inserted which I received from Dr. Falconer or his Son, those of the Father will be marked F. F. and those of the Son F.

Observations which are still dubious will be marked Q.

THE Rescript of the Roman Emperors relating to the articles imported into Egypt from the East, is found in the Digest of the Roman Law, book xxxix. title xvi. 5, 7. in the edition of Gothofred. vol. i. p. 570, (best edition, vol. ii. p. 919.) and cited by Salmasius Plin. Exercit. p. 1189. Paris edition, 1629. Ramusio, vol. i. p. 371. Purchas, vol. ii. p. 33, and by Bergeron, &c. &c.

Neither Ramusio or Purchas have entered into any discussion of the articles specified, but enumerate them as they stand in the Rescript, which Gothofred shews to be abundantly incorrect. Salmasius has done much towards restoring the true reading, and much is still wanting.

The law itself, or rather the Rescript, is imputed by Ramusio to Marcus and Commodus, and, standing, as it does, between two other Rescripts, which bear their name, it is probable that this opinion is right.

The passage which precedes the Rescript in the Digest, is as follows:

“ The Rescript of Marcus and Commodus ordains, that no blame
“ shall attach to the collectors of the customs, for not noticing the
“ amount of the customs to the merchant, while the goods are in
“ transit; but if the merchant wishes to enter them, the officer is
“ not to lead him into error.”

Upon this, it is only necessary to observe, that Commodus was associated with his father Marcus Aurelius Antoninus, in the empire, four years before his death; that is, from the year 176 to 180. This makes the Rescript more than a century later than the date I have assumed for the Periplus. Anno 63. See supra, p. 57.

GENERAL TITLE OF THE SECTION.

Species pertinentes ad Veetigal,

Which may be rendered, "Particular articles [of Oriental Commerce] subject to duties [at Alexandria.]" Or, if Species be confined to a sense in which it was sometimes used, it signifies *Spices*, gums, drugs, or aromatics. Salmasius shews that the same term had been applied in Greek: Inferior Latinitas *speciem* simpliciter dixit, ut Græci, Σιλαφίων εἶδος. Λευκόν εἶδος. P. 1050. And Dr. Falconer observes from Du Cange: Aromata, vel res quævis aromaticæ. Gallis, *Epices*.—Spices were mixed with wine. Solomon's Song, viii. 2.; and in the middle ages this mixture was called Pigmentum, the Spicery Bowl; Potio ex melle et vino et diversis speciebus confecta. Du Cange.—Species is likewise used for the ingredients of a compound medicine before they are mixed. F. F.

ARTICLES of COMMERCE mentioned in the DIGEST, and in the PERIPLUS of the ERYTHREAN SEA, assigned to ARRIAN.

A

1. Ἀβόλλα. *Abolla*. P.

If this term be Greek, it is remarkable that it should not occur in any Greek Lexicon, and if it is Latin (as apparently it is), it is equally remarkable that a Greek merchant of Alexandria, such as the

the author probably was, should have introduced a Latin¹ term into his Greek catalogue; but Latin terms crept into purer Greek writers than our author, and commerce perhaps had adopted this, as expressing the actual garment which was neither used by, or formerly known to the Greeks. The Roman Abolla was a military cloke², perhaps not unlike our watch cloke. And the adoption of the word is not more strange than the usage of the English in adopting the French *Surtout*, or the French adopting the English *Redingote* (Riding Coat).

2. Ἀβόλοι νόθοι χρωμάτινοι.

Single cloths dyed and imitating some of a superior or different quality. But see Salmaf. ad Vopiscum.

Ἀβόλοι, according to Salmasius (Plin. Exercit. 1062,) are single cloths, the same as ἀπλοίδεις, in opposition to διπλοίδεις, or double; but whether this relates to the texture, to the ornaments wrought on them, or the consideration of their being with lining or without, seems difficult to determine. Our weavers call a silk, *shot*, when the warp is of one colour and the woof of another; and the word Ἀβόλοι may be literally rendered *unshot*; but it does not follow that this is an accurate rendering of the term. Homer mentions garments both single and double; and Deborah makes the mother of Sisera say, that

¹ The word Abolla is not in Du Cange, but it is in Meursius, who says, that the following article Ἀβόλοι ought to be read Ἀβόλλαι. The gender of the adjectives used with Ἀβόλοι is adverse to this supposition.

² It seems worn as an outer military cloke by officers and men of rank. Ptolemy, son of Juba, king of Mauritania, grandson of M.

Antony by Selène the daughter of Cleopatra, was killed by Caligula, who was a great grandson of Antony, non aliâ de causâ quam quod edente se munus, ingressum spectacula convertisse oculos hominum fulgore purpureæ abolla animadvertit. Suet. Calig. c. 35. It was likewise a garb of the philosophers, audi facinus majoris Abollæ. Juvenal.

her son had perhaps brought home a raiment of needle work, of needle work *on both sides*, which is apparently correspondent to the tunick, which Ulysses describes to Penelopé (Od. lib. T. 230). If this interpretation, therefore, should be admissible, ἄεστοι χρωμάτινοι may be rendered *plain cloths of one colour*, and νόθοι would express that they were of an inferior quality. But see the term διπλοείματος, Diog. Laertius in Diogene, p. 350. Horace. *Duplici³ panno* patientia velat. And the address of Plato to Aristippus in Diog. Laert. Aristip. p. 67. Σοὶ μόνῳ δέδοται καὶ χλαμύδα φορεῖν καὶ ῥάκος. “You are the
“only Philosopher who can assume with equal propriety the dress
“of a gentleman (χλαμύδα), or the ordinary garb (ῥάκος) of a
“cynick.”

3. Ἀδάμας. *Diamond.* D. P.

The ancients certainly apply this word to our modern gem the diamond, but use it in a larger sense as we still use adamant, applied to other hard substances. But in the only passage where it occurs in the Periplûs, it is mentioned on a coast where diamonds very probably were to be purchased, and is joined with the Hyacinth or Ruby, and other transparent stones.

Theophrastus thought the diamond indestructible by fire, which is now found to be a mistake, F. Many experiments have been tried on this subject of late, and diamonds under the rays of a reflecting mirror, have been reduced to *charcoal*!

4. *Alabanda.*

A precious stone between a ruby and an amethyst. Dutens, p. 16. But Hoffman renders it toys or trifles. See Cosmas, Ind. Mont-

³ See Apollonius, Epif. iii. where διπλὰ is opposed to τριζων.

fauçon,

faucōn, Nov. Col. Patrum, p. 337. Ἡ Ταπρόβανη εἴτα λοιπὸν εἰς τὴν σφεραὴν ἐμπόριον, ἢ Μαραλλῶ βάλλουσα κοχλίους, ἔστι Καβερ βάλλουσα τὸ Αλαβανδηνόν. Marallo seems to be Marawar, and Kaber the Kaveri; and if pearls are the attribute of Marallo, some precious stone should of course be the attribute of Kaber.

5. Ἀλόη. D. P.

There are two sorts of Aloe, one a bitter cathartic, and another an aromatic, by some supposed to be the sandal-wood. See Salm. Plin. Ex. 1056; but it is, to all appearance, the Agallochum of the Digest, mentioned still under the name of Agala, as an odoriferous wood by Captain Hamilton, at Muscat. Account of the E. Indies, vol. i. p. 68. It is probably used by the author of the Periplūs in the former sense, as being mentioned on the coast of Oman in Arabia, where the Succotrine Aloe is naturally imported, as the island Socotra itself was under the power of the Arabs on the main, being subject to Eleazus king of Sabbathā, in the neighbourhood of Oman.

It is remarkable, that when the author arrives at Socotra, he says nothing of the Aloe, and mentions only Indian Cinnabar as a gum or resin distilling from a tree. I was at a loss to understand what this meant, till I learned from Chambers's Dictionary that the confounding of Cinnabar with Dragon's Blood was a mistake of ancient date, and a great absurdity. Dragon's Blood is still procurable at Socotra.

6. *Amomum*. D. See *Kard-Amomum*.

7. Ἀνδριάντες. *Images.* P.

These are mentioned as imported into Oman in Arabia; but whether as merely ornamental, or objects of superstition, does not appear. Dr. Falconer had supposed that these might be images, brought from the East like our China figures; but they are imports from Egypt into Arabia, and therefore probably Grecian workmanship. See Peripl. p. 16. F. F. & F.

8. Ἀργυρώματα, Ἀργυρᾶ σκεύη, Ἀργυρώματα τετορευμένα. *Plate, Plate polished.* P.

These works in silver do not appear to be the beautiful produce of Greek artists, but vessels of plate adapted to the market. By the frequent mention of these articles, they must have formed a considerable branch of commerce.

9. Ἀρσενικόν. *Arsenick.* P.10. Ἀρώματα. *Aromatics.* P.

Drugs in general are comprehended under this term (Sal. Plin. Ex. p. 1049, 1050).

11. Ἀσύφη. *A species of Cinnamon.* See Καρσσία. P.

B

12. Βδέλλα. *Bdellium.* P.

An aromatic gum, supposed to be imported from Africa, but now seldom used*. Salmasius[†] describes it as a pellucid exudation from

* Chambers in voce.

† Plin. Exercit. p. 1150.

the tree so called, not quite clear, of a waxy substance, and easily melted, called by the Portuguese *anime*; there are three sorts, Arabian, Petrean, and Bactrian. It was imported, according to the Periplûs, from Binnagara, or Minnagara [Bekker], in Scindi, and from Barygaza [Baroach] in Guzerat.

The *בדלה* Bhedolabb of scripture, Gen. ii. 12. Num. xi. 7. rendered bdellium, is by the Rabbis rendered chrystal, and has nothing in common with the bdellium of the Periplûs but its transparency. The word bdellium seems a diminutive of the bdella used by our author. Pliny, b. xii. c. 9.

There are still found three sorts; two African, rather of dark brown hue; and one Asiatic, answering the descriptions of Salmasius, generally brought to England among parcels of myrrh. There are specimens of the African sort in the collection of Dr. Burgefs.

Bdella are supposed by Benjamin of Tudela to be pearls (p. 52. Bergeron); and oysters, either he or his translator calls reptiles: he finds them at Katiphan (el Katif). And Schikard interprets bedolach, pearls; but says they are not the bdellium of scripture. Pliny: *translucidum, simile ceræ, odoratum, et cum fricatur, pingue, gustu amarum, citra acorem*; aliqui Peraticum appellant ex Media advectum. Lib. xii. 9. or 19 Hardouin. Peraticum is the general term of the Periplûs for any article brought from beyond the Straits of Bab-el-mandeb; or, according to Hardouin, *ἐκ τῶν περάτων τῆς γῆς*. In Pliny it is evidently a gum; the best sort from Bactria, and the inferior species from Arabia, India, Media, and Babylon. It is also a gum apparently in the Periplûs. F.

13. *Beryllus*. D. *Beryl, l'Aigue Marine, Aqua Marina.*

Some have mistaken it for the cornelian, but the true beryll has the colours of sea water. Pliny, xxxvii. 20. Hard. Probatissimi sunt ex iis, qui viriditatem puri maris imitantur. It is a gem of great hardness, very brilliant, transparent, and of a green and blue colour delicately mixed, and varying according to the different proportions of either. Dutens.

14. *Byssus, Opus Byssicum*. D. *Byssinon.—Cotton Goods.*

I understand there is a work of Dr. Reinhold Forster, *De Byssu Antiquorum*.

F

15. *Galbane, Galbanum*. D.

A gum from a ferula or fennel growing in Africa. Salm. p. 353. It is an emollient, and used in plaisters; supposed to be derived from the Hebrew chelbena, fat. Exod. xxx. 34. Ecclef. xxiv. 21. Chambers in voce.—“Galen, Dioscorides, and Pliny, describe it “also as the produce of a ferulaceous plant. Bubon Galbanum “foliolis rhombis, dentatis, striatis, glabris, umbellis paucis. Linn. “Sp. Pl. p. 364. Little used as an internal medicine; but described “also by Nicander in the Theriacà.” F. F.

16. Γέζειρ. Ζίγειρ. Γίζι. *A species of Cinnamon*. P. See Καρσία.

Zigeer in Persick signifies small. The smaller and finer rolls of cassia were most valued, Dioscorides says, the best sort was called Gizi, which is a corruption of Zigeir.

17. Δικρόσσια,



17. Δικρόσσια, p. 8. *Dicrossia*. — *Cloths either fringed or striped.* P.

Κροσαί and κροσσαί, according to Salmasius⁶, from Hesychius, signifies the steps of a ladder, or in another sense, the cornice of a wall, or the battlements. But he derives the same word from κείρω, to shave, and interprets κρόσοι, locks of hair. Hence cloths, δικρόσσια, he says, are those which have a fringe knotted or twisted.

But Homer uses the word twice. 1st. Κρόσσας μὲν πύργων ἔρυσεν καὶ ἔρειπον ἐπάλξεις. M. 258, where it agrees with the interpretation of Hesychius, the cornice of the wall, or as it may be rendered the *step* of the parapet, a *rim* or *line* running round below the battlements. Not differing, perhaps, from the application of the word as used Ξ 35, where Homer says, the ships were too numerous to be drawn up on the shore in one *line*. Τῷ γὰρ προκρόσσας ἔρυσαν⁷, they therefore drew them in *lines* one behind another like the steps of a ladder. Agreeable to the other explanation of Hesychius, or as Apollonius renders it, ἀποκρηπιδώματα, in *stripes*⁸.

We may therefore conclude, that we cannot err much in rendering the Δικρόσσια of the Periplūs, either cloths *fringed*, with Salmasius, or *striped* with Apollonius. So Virgil, virgatis lucent sagulis. The term used here is in conjunction with cloths. Ἀβολοὶ καὶ λέντια καὶ δικρόσσια, where perhaps ἀβολοὶ is in opposition to δικρόσσια. Λέντια is the Latin word Lintea, and Meursius in voce, says, λεντία ἀκροσσα are plain linens, not striped.

⁶ Plin. Exercit. p. 762.

⁷ See Lennep in voce.

⁸ See Apollon. Lexicon in voce.

18. Δηνάριον. *Denarius*.—The Roman coin, worth in general denomination nearly 8d. English. P.

It appears by the *Periplûs*, that this coin was carried into Abyssinia for the sake of commerce with strangers, and that both gold⁹ and silver Denarii were exchanged on the coast of Malabar against the specie of the country with advantage to the merchant.

19. Δέακα, Κίττα, Δάκαρ. P.

Are joined in the *Periplûs* with Kaffia, and are supposed to be inferior species of the cinnamon. See Ramusio, in his discourse on the voyage of Nearchus, and Salmas. de Homonymiis Hyles Iatrices, c. xcii. c. xciii. a work referred to by Salmasius himself, but I have not seen it.

20. Δέλιμα. P.

Slaves of a better sort and for the Egyptian market.

E

21. Ἐλαιον. *Oil of Olives*. P.
 22. Ἐλέφας. *Ivory*. D. P. Ebur. D.
 23. Ἐυόδια. *Fragrant spices or gums*. P.

Z

24. Ζῶναι σκιωταί. P.

Girdles or purses wrought or embroidered. A great commerce throughout the east is still carried on in fashes, ornamented with

⁹ The gold Denarius, according to Arbuthnot, was the forty-fifth part of a pound of gold in the age of Nero.

every sort of device, and wrought up with great expence. *Σιωταί* does not occur in the lexicons, but probably means *shaded* of different colours.

25. *Ζίγγιβερ.* *Ginger.* D. P.

Not mentioned in the *Periplus*, but by *Salmasius*“, who says the ancients knew little of it, and believed it to be the root of the pepper plant. It is applied to a species of cinnamon by *Dioscorides* (p. 42.), possibly to an ordinary sort from the coast of *Zanguebar*, and *Zingiber* itself may be derived from *Zingi*, the name of the African blacks on that coast.

H

26. *Ἡμίονοι ὑπηγοί.* *Mules for the saddle.* P.

Θ

27. *Θυμίαμα μακρότε.* *Gums or Incense.* D. P. *Μακρότε* occurs only in the *Periplus*, p. 7. and without any thing to render it intelligible.

I

28. *Ἰμάτια βαρβαρίνα ἀγνάφα τὰ ἐν Αἰγύπτῳ γινόμενα.* *Cloths.* P.

For the *Barbarine*“ market, undressed and of Egyptian manufacture.—The *Barbarines* are the ancient *Troglodyte* shepherds of Upper Egypt, Nubia, and Ethiopia, very graphically traced and distinguished by Bruce.

“ *Plin. Exercit. p. 1070.*

“ The west coast of the Gulph of Arabia.

Ἰμάτια βαρβαρικά σύμικτα γεγναμμένα. *Cloths.* P.

For the Barbarine market, dressed, and dyed of various colours.

Ἰματισμός Αραβικὸς χειριδωτὸς ὅτε ἀπλῆς καὶ ὁ κοινὸς καὶ σκοτελάτος
καὶ διάχρυσος. *Cloths.* P.

Made up, or coating for the Arabian market.

1. Χειριδωτὸς. P.

With sleeves reaching to the wrist.

2. Ὅ τε ἀπλῆς καὶ ὁ κοινὸς. See Ἀβολοί. P.

3. Σκοτελάτος. P.

Wrought with figures. From the Latin Scutum, Scutulatus; the figure being in the form of a shield. A dappled grey horse is thus called Scutulatus.

4. Διάχρυσος. *Shot with Gold.* P.

5. Πολυτελής. P.

Of great price.

6. Νόθος. P.

In imitation of a better commodity.

7. Περισσότερος. P.

Of a better quality, or in great quantity.

8. Παντοῖος. P.

Of all sorts.

9. Πολύμιτα

9. Πολύμιτα πολύμπα. P. Ezekiel, xxvii. 24. בְּגָדֵי בַמַּלְלִים
Polymitorum. Vulgate, &c. Pallis Hyacinthinis, Chlamy-
dibus coccineis. Chald. Parap.

Of thicker woof, or larger woof than warp. Q.

29. Ἰνδικὸν μελαν. P. *Indico. Salmas. & Hoffman in voce.*

See Pliny, xxxv. 27. Hard. cited by Hoffman, where it is mani-
 festly indico, used both as a colour and a dye.

30. ἵπποι. *Horses.*

As presents, and as imports into Arabia.

K

31. Κάγκαμος. *Kankamus—Gum Lack. D. P.*

According to Scaliger; and Dioscorides calls it a gum. But Sal-
 masius rather inclines to think it a drug like myrrh. Lack was used
 as a purple or blue dye by the Indigo dyers. Ἰνδικόβαφοι. Salmas.
 Plin. Exercit. 1148. 1152. Plin. xii. 20. See Pomet's History of
 Drugs, b. viii. p. 199, who says gum of four colours was found in
 one lump. He does not hold it to be Gum Lack, but that it has a
 smell like it; it is found in Africa, Brasil, and Saint Christopher's.
 Pomet's Specimen was from the West Indies.

32. Κάλτις. *Kaltis—A Gold Coin. P.*

According to the Periplus it was a coin of this name current in
 Bengal, and that the metal was collected from a mine in the neigh-
 bourhood. Stuckius says, a coin called Kalais is still current in

Bengal, on what authority does not appear. Paolino notices the word, but I cannot recal the passage to my memory; it is called Kalteen in Bengal, or Kurdeen, in the Ayeen Acbari at present. As. Ref. vol. v. p. 269.

33. Καρδάμωμον. *Kardamom.* D.

Both the Amomum and Cardamomum are mentioned in the Digest, and are supposed by Dr. Burgefs to be the same aromatic, and that amomum has the addition of kar, from its resembling an heart, which it does. The doubts of Natural Historians on this subject are numerous, and Salmasius, after much learned disquisition, leaves the question undetermined. (See article Kostamomum.) But the opinion of my friend Dr. B. is this, that the kardamomum differs from the amomum chiefly as to its outward appearance in the shape of the pod or the vessels in which it is contained. The true amomum, he says, is from Java, its pod is in the shape of a nasturtium, under which title it is described by Pliny, while the kardamomum is in the form of an heart. It is brought from Sumatra, Ceylon, and Africa. The Sumatran approaches nearest that of Java, both in shape and flavour, but none of the sorts are equal to the Javan; the flavour is aromatic, warm, and pungent, in which qualities it is resembled by all those species which take the addition of amomum, and I have been favoured with specimens of all the different sorts by Dr. B. Theophrastus says both come from Media; others derive them from India. Martin Virg. eclog. iii. 89. Assyrium amomum, equivalent to Median. Galen says it is considerably warm: θερμῆς δυνάμεως ἱκανῶς. Stephan. in voce. The Καρδάμωμον ἰδίαν καὶ κρῆματικώτερον, τῆς θερμῆς δυνάμεως βοθνεατέρας. Stephan. in

in voce. Warmth and pungency are therefore the qualities of both, and the difference in degree accords with the two specimens of Dr. B. Whether the Greeks first found these in Media and Assyria, or whether there were aromatics in those countries resembling those of India, may still be doubted. The Greeks called cinnamon the produce of Arabia, till they had a knowledge of that country themselves.

Murray, vol. i. p. 65, doubts the origin of the name; for he says, "The Indians call it cardamon, but thinks it very dubious, whether the cardomum of the ancients be the same. The pericarpium of the lesser cardomum has obscurely the shape of a heart. Lewis says it is described in the Hortus Malabaricus under the title of Elettari." F. F. What is added must compel me to retract my supposition, that amomum expresses warmth and pungency. "Nō tārunt viri docti ἄμωμον λιβανῶτον, thus esse et sincerum et inculpatum, veteresque ἄμωμον vocasse omne aroma quod purum et non vitiatum esset. Bodæus a Stapel. Theophrast. p. 981. Stephan. in voce, Ἀμωμον." E. F. But in Stevens I find Λίβανος ἀμωμότης, and not ἄμωμον λιβανῶτον.

If the opinion of Dr. Burgeſs be right, which seems highly probable, and this aromatic be found only in Java and Sumatra, or perhaps in Ceylon, it argues in favour of the Periplūs, which is silent upon this subject; for the veracity of the merchant is as much concerned in not noticing what he had not, as in describing what he had seen.

34. *Capilli Indici.* D.

35. *Καρπάσος.*

35. Καρπάσος. *Karpasus*—*Fine Muslins*. D. P.

Opposed to ordinary cottons. It is remarkable that the native Shanskrete term is *Karpas*, as appears by Sir William Jones's catalogue. *Asiat. Ref.* vol. iv. p. 231. Calcutta edition. But how this word found its way into Italy, and became the Latin *Carbasus* (fine linen) is surprizing, when it is not found in the Greek language. The Καρπάσιον λίνον of Pausanias (in Atticis), of which the wick was formed for the lamp of Pallas, is Asbestos, so-called from Karpasos, a city of Crete. *Salm. Pl. Exercit.* p. 178.

Carbaso Indi corpora usque ad pedes velant eorumque rex aurea lectica margaritis circum pendentibus recumbit distinctis auro et purpurâ carbasis qua indutus est. Q. Curtius, lib. viii. c. 9. F.—I owe this passage to Mr. Falconer, and think it may confirm the reading of Salmasius of Σινδόνες μαργαρίτιδες, for Σινδόνες Εβαργέτιδες. *Peripl.* p. 34. So Lucan also, *Pharf.* iii. 239.

Fluxa coloratis astringunt carbasa gemmis. F. *Karpefium* is a medicinal juice. Dioscor. A poisonous juice. Galen. It is a substitute for cinnamon, or a species of that spice. Ἀντὶ Κινναμώμης Καρπήσιον. And ἀντὶ Κινναμώμης Κασίας τὸ διπλῆν ἢ Καρπήσιον. The different species are unknown. *Salmaf.* p. 1306.—Has Καρπήσιον any reference to the Κάρφη of Herodotus?

36. Καρυοφυλλον. D. *Garofalo*, It. *Girofle*, Fr. *Clou de Girofle*, Fr.

Our English clove is probably from clou, a nail, which the clove resembles, but not without a possibility that it may be a contraction of girofle. The garyophyllon of Pliny is not the clove. F. F. The clove is a spice of the Moluccas, which is the reason that the
Merchant

Merchant of the *Periplus* did not see it or record it; neither do I find it in the catalogue of Dioscorides (*Matthioli*) as an Oriental spice. It should seem therefore from Pliny, the *Periplus*, and Dioscorides, that this spice was not known early to the ancients; and the reason was, because they did not go farther east than Ceylon. Salmasius, however, is of a different opinion, as I learn from Dr. Falconer, who cites his work, *De Homonym. Hyles iatric.* c. 95.—which I have not seen:

Vidit Plinius Caryophyllon quale apud nos frequens visitur cujus in summo clavi capite rotundum extat tuberculum piperis grano simile, sed grandius et fragile, multis veluti fibris intus refertum. Calicem floris esse volunt adhuc conniventem, et nondum apertum, videtur existimasse Plinius esse fructum ipsum pediculo suo indentem et inhærentem, nam clavus esse plane ligneus, et furculi instar habere ei visus est. . . . Caryophyllum ad condimenta olim usurpatam ut piper et costum, &c. . . ostendunt apicii excerpta; . . . quod dixit Plinius de odore Caryophyllorum fidem facit non alia fuisse ejus ætate cognita quam quæ hodie habentur, &c. Dr. F. is not convinced by Salmasius, and his doubt is well founded. F. F. Cosmas mentions the *Ευλοκαρυφύλλον* at Ceylon, and Hoffman (in voce) informs us, that the wood of the clove-tree is now used in odoriferous compositions and unguents. It is a circumstance in favour of the veracity of the *Periplus*, that the Merchant has not recorded this spice; and of Cosmas, that his friend Sopatrus saw only the wood. An hundred years later than the *Periplus*, it had found a place in the Digest: the custom-house at Alexandria received not the imports of one merchant only, but every thing that found its way by any conveyance from the East. It ought not to be

be omitted, "that caryophyllon is possibly not derived from the Greek; for the Turks use the term Kalafur, and the Arabs, Karumfel, for the clove." Nieuhoff. Leg. Batav. vol. ii. p. 93. F. F. Still it may be inquired, whether the Arabic karumfel may not be borrowed from the Greek karuophyl: many Greek terms for plants, drugs, &c. adopted by the Arabs, are noticed by Salmasius.

37. *Κασσία. Kasia. D. P.*

This spice is mentioned frequently in the *Periplus*, and with various additions, intended to specify the different sorts, properties, or appearances of the commodity. It is a species of cinnamon, and manifestly the same as what we call cinnamon at this day; but different from that of the Greeks and Romans, which was not a bark, nor rolled up into pipes like ours. Their's was the tender shoot of the same plant, and of much higher value, sold at Rome in the proportion of a thousand denarii¹² to fifty; it was found only in the possession of Emperors and Kings; and by them it was distributed in presents to favourites, upon solemn occasions, embassies, &c.

That it was the tender shoot, and not hollow, may be proved from Pliny, lib. xii. 19, where he informs us that Vespasian was the first that dedicated crowns of cinnamon inclosed in gold filagree (*auro interrasili*) in the Capitol, and the Temple of Peace; and that Livia dedicated the root in the Palatine Temple of Augustus; after which he adds, that the *casia* is of a larger size than the cinnamon (*crassiore farmento*), and has a thin rind rather than a bark, and its value consists in being *hollowed out* (*exinaniri pretium est*). He adds, that the best sort has a short pipe of this rind or coating (*brevi tunicarum*

¹² Pliny.

fistulâ et non fragili, lege et fragili); this Casia is manifestly a Cinnamon, and by consulting the two chapters of Dioscorides on Casia and Cinnamon, the best casia called Daphnitis, at Alexandria, is doubtless the same. Matthioli, p. 42; and again his cinnamon is, "*sottile di rami*," a very fine spray, with frequent knots, and smooth between the joints. Salmasius cites Galen, who compares the Karpasium τοῖς Κινναμώμυς ἀκρέμοσι, to the extreme shoot or spray of cinnamon, and ἀκρέμοσι is so peculiarly expressive of this, as to remove all doubt, (p. 1304, Plin. Ex.) but if our cinnamon is the ancient casia, our casia is again an inferior sort of cinnamon; both are known to our druggists and grocers; and since the conquest of Ceylon, the duty is lowered on our cinnamon, and raised on our casia. The reason of which is plain; because the true and best cinnamon is wholly our own by the possession of Ceylon, and casia is procurable from Sumatra, and several of the eastern isles. (See Marsden's Sumatra, p. 125.) It is plain, therefore, that we adopt cinnamon for the casia of the ancients, and casia for an inferior cinnamon. Whether the cinnamon and casia of the ancients were both from the same plant, may be doubted; for there are different species even of the best sorts, as we learn from Thunberg; but that both had the same virtue, though not equal in degree, we are assured by Galen, who informs us, that two parts of casia are equal to one of cinnamon. (Matthioli, p. 46.) And Galen examined both when he composed the Theriac for the emperor Severus.

I am confirmed in the opinion I had formed by Dr. Falconer, who (after citing Linnæus, Combes, Philos. Transact. 1780, p. 873.; Dossie's Memoirs of Agriculture, p. 202.; Solander; Thunberg, Vet. Acad. Hanbl. 1780, p. 56.; and Murray, Apparatus Med. vol. iv. pp. 441, 442. edit. Gotting. 1787) writes thus: "I myself

" compared

“ compared two bundles, one of casia and another of cinnamon,
 “ and in presence of all the physicians and surgeons of the Ge-
 “ neral Hospital at this place [Bath], and none of us could find any
 “ difference in the size of the pieces, in the taste, flavour, colour,
 “ or smell of the different articles, either in quality or degree.”
 These are the two species as now distinguished; that is, the cinna-
 mon of Ceylon, and the casia (say) of Sumatra. He then adds:
 “ Perhaps it may be true that the small branches were called cinna-
 “ mon [by the ancients], but the difference between that and casia
 “ was small. Galenus palam prodit (inquit Matthiolus in Diosco-
 “ ridem) cassiam sæpenumero in cinnamomum transmutari, fate-
 “ turque se vidisse cassiæ ramulos omni ex parte cinnamomum refe-
 “ rentes, contra pariter inspexisse cinnamomi furculos cassiæ prorsus
 “ persimiles. Matthiol. Dioscor. p. 34. he says, the sticks of cin-
 “ namon are not in length above half a Roman foot; and Diosco-
 “ rides, in Matthioli’s translation, uses the words tenuibus ramu-
 “ lis.” F. F.—See also Larcher, Herod. tom. iii. p. 375. who
 supposes that the excess of price in the spray, was occasioned by its
 causing the destruction of the plant when so cut.

This sort we must first consider, because they themselves applied
 the name improperly, having it derived, by their own account,
 from the Phœnicians¹, and giving it to the same production, though
 in a different form and appearance from that by which it is known
 to us.

The kinnamomum of the Greeks and Romans was necessarily
 derived from the Phœnician², because the merchants of that country
 first brought it into Greece. The Greeks themselves had no direct

¹ Herodotus, lib. iii. p. 252. ed. West.

² by Larcher, of turning the Phœnicians into a
 See a curious mistake of Pliny, noticed p. 349.

communication with the east; and whether this spice was brought into Persia" by means of the northern caravans, or by sea into Arabia, the intermediate carriers between either country and Greece were of course Phœnicians. It will therefore be no difficult matter to prove that the Phœnician term expresses the cinnamon we have, and not that indicated by the Greeks and Romans. The term in all these languages signifies a pipe; for the Hebrew קנה kheneh is the Latin canna; and syrinx, fistula, cannella, and cannelle, convey the same idea in Greek, Latin, Italian, and French. The Hebrew term occurs in Exodus, xxx. 23, 24. joined with casia, as it is almost universally in the writings of the Greeks and Romans. It is styled Sweet Cinnamon, and is written קנה בשם, khinemon besem, the sweet or sweet-scented pipe; and the word rendered Casia by our translators" is קדרה khiddah, from khadh, to split or divide longways. These two terms mark the principal distinctions of this spice in all these languages; as khinemon besem, Hebrew; casia syrinx, Greek; casia fistula", Latin; cannelle, French; and

¹⁵ By Persia is meant the whole empire.

¹⁶ The whole 30th chapter is worth consulting on this curious subject, as it proves that many of the Oriental spices and odours were, even in that early age, familiar in Egypt.

¹⁷ If from this chapter of Exodus we prove that cinnamon was known to the Hebrews in the age of Moses, we have a second proof of its being used in the embalmment of the mummies from Diodorus, lib. i. 91. tom. i. p. 102. Larcher, tom. ii. p. 334.

¹⁸ The casia fistula of the moderns is a drug totally distinct: it is a species of lœna which comes from the Levant, Egypt, Brasil, and the Antilles, and is a corruption from Acacia.

Salm. Plin. Ex. p. 540. Certe casia nomen pro ea specie quæ solvit alvum ex *Acacia* factum quamvis diversum sit genus. Id. p. 1056. This corruption is not of very modern date; for Salmasius adds, Ut mirum sit ante hos trecentos et amplius annos, casiam fistulam Latinis dictam, eam quæ purgandi vim habet. See also Ramusio, vol. i. p. 282.

Mr. Falconer doubts concerning the casia fistula, but acknowledges that Bodæus on Theophrastus, p. 293. is of a contrary opinion. F. I cannot help thinking that the authorities here produced, in conformity to Bodæus, must preponderate.

in the same manner the inferior sort is khiddah, Hebrew; xylo-casia¹⁹, Greek; casia lignea, Latin.

Whether the Greeks and Latins derive their term from the Hebrew khine-mon²⁰, or from the compound kheneh-amomum, is not so easy to determine; for amomum is a general term²¹ for any warm drug or spice, and kin-amomum, in this form, would be again the spice-canna, the casia fistula under another description. But that the casia fistula and the casia lignea are marked as the two leading distinct species, from the time of Moses to the present hour, is self-evident. And I now say, that if the Romans applied the term Cinnamon to the tender shoot of this plant, and not to the pipe cinnamon, such as we now have it from Ceylon, their use of the word was improper. That this was the case, there is reason to think; but that there was some obscurity or fluctuation in their usage, is certain also.

Salmasius²² quotes Galen to prove that the plant itself was brought to the emperor Marcus Aurelius, from Barbarikè²³, in a case seven

¹⁹ This species is distinctly marked in the Roman Law de publicanis, leg. xvi. D. Casia-syrinx, Xylo-casia. Salm. 1055. id. in Canticis Salomonis, Nardus, Crocus, Fistula cinnamomum. It is called *Σανφορρά*, Hard Casia, in the Periplus.

²⁰ קנה is from קנה, a reed, canna, and the termination doubtful, but probably from מנה, peculiar. It is in this sense that מנה, manna, signifies the food from Heaven; the peculiar food or bread. And hence קנה, the peculiar canna, by way of pre-eminence. Parkhurst derives it not from קנה, canna, but from קנה, khanam, to smell strong, but he allows there is no such verb in Hebrew.

I cannot help thinking that קנה בשם, kheneh besem, and קנה בשם, khinnemon besem, have the same root. The sweet kheneh, the sweet khinnemon. Notwithstanding kheneh besem is rendered calami odoriferi, the sweet calamus, it is certainly not technically the calamus aromaticus.

²¹ Salm. 401.

²² Plin. Ex. p. 1304. Galen de Antidotis, lib. i.

²³ Barbarikè is perhaps not a proper name, but the port frequented by the Barbaras of Adel or Molyllon. It is the mart in Scindi; but whether Patala or Minnagara, is difficult to determine.

feet long. Galen saw this, and there were other cases of a smaller size, containing specimens of an inferior sort. This, therefore, must be in a dry state; but this he says was the true cinnamon. Undoubtedly it was, for the plant itself, and the spice, as we have it, in its usual form, have this difference and no more. But Galen says, in another passage²⁴, that casia and cinnamon are so much alike that it is not an easy matter to distinguish one from the other. And Dioscorides writes, "Casia grows in Arabia; the best sort is red, of a fine colour, almost approaching to coral, strait, long, and pipy, it bites upon the palate with a slight sensation of heat, and the best sort is that called Zigir, with a scent like a rose." This is manifestly the cinnamon we have at this day; but he adds, "cinnamon has many names, from the different places where it [is procured or] grows. But the best sort is that which is like the casia of Mosyllon; and this cinnamon is called Mosyllitic, as well as the casia." This therefore is only a different sort of the same spice, but it does not grow either in Arabia or at Mosyllon, it took its name from either country, as procured in the marts of either. This traffic is explained in the *Periplus*, but Dioscorides was unacquainted with it. The description²⁵ he gives of this cinnamon is, "That when fresh, and in its greatest perfection, it is of a dark colour, something between the colour of wine and [dark] ash, like a small twig or spray full of knots, and very odoriferous." This is manifestly not our cinnamon, but the same as Galen's, the tender shoot and not the bark. It is worth remarking that Dioscorides lived in the reign of Nero²⁶, and if the true source of cinna-

²⁴ See Ramusio, vol. i. p. 182. The whole of this is from Ramusio. p. 348. He is equally indebted to Salmasius as myself.

²⁵ See Larcher's whole Dissertation, tom. iii. ²⁶ Hoffman in voce.

mon was then just beginning to be known by means of the navigation detailed in the *Periplus*, this knowledge had not yet reached Asia²⁷ Minor or Rome. Pliny who lived a few years later had just arrived at this information, for he says expressly, Mosyllon was the port to which cinnamon was *brought*²⁸, and consequently the port where it was procured by the Greeks from Egypt, and through Egypt conveyed to Rome. It had long been procured there, and long obtained the name of Mosyllitic, but it was now known not to be native, but imported at that place.

The trade to Mosyllon was opened by the Ptolemies; still, before the existence of a Grecian power in Egypt, the Greeks had probably little knowledge of it, but from the importation of it by the Phœnicians; and the Phœnicians received it, either by land-carriage from the Idumeans of Arabia, or when they navigated the Red Sea themselves with the fleets of Solomon, they obtained it immediately from Sabœa; perhaps also, if Ophir is Sofala on the coast of Africa, they found it either at that port, or at the others, which the Greeks afterwards frequented. These lay chiefly in Barbaria; (the kingdom of Adel,) comprehending the ports of Mosyllon, Malao, and Mundus, where it was possibly always to be met with. This commerce indeed is at best only conjectural, neither could it be of long duration, as it ended with the reign of Solomon, and was never resumed; but that the Phœnicians had a settled intercourse with Sabœa we learn incontrovertibly from Ezekiel²⁹, and that Sabœa was the centre of Oriental commerce, is proved in our account of the *Periplus*.

²⁷ Dioscorides was a native of Anazarba; but whether he wrote there or at Rome, I have not been able to discover.

²⁸ Portus Mosyllites quo cinnamomum devehitur. Lib. vi. c. 29.

²⁹ Cap. xxviii. v. 23. Sheba is Sabœa.

It is this circumstance that induced all the early writers to impute the produce of India to the soil of Arabia; an error which commenced with the first historians extant, and which existed in history till the age of Pliny, and in poetry almost to the present hour. Fable is the legitimate progeny of ignorance; we are not to wonder, therefore, when we read in Herodotus³⁰, that casia grew in Arabia, but that cinnamon was brought thither by birds from the country where Bacchus was born, that is India. The term used by Herodotus indicates the cinnamon we now have; for it signifies the peel, hull, or rind³¹ of a plant, and evidently points out the bark, under which form we still receive this spice. The error of Herodotus is repeated by Theophrastus, who assigns both casia and cinnamon to Arabia³²: this intelligence I receive from Bochart; and I am obliged to him also for a very curious citation from Uranius, in Stephanus de Urbibus, who says, the country of the Abasenes produces myrrh, aromatic gums or odours, frankincense, and the bark [of cinnamon]³³. This passage is valuable as the first instance extant in which the name of Abyssinians is mentioned. But it is not to be depended on, unless it can be referred to the conquests of that nation in Arabia, for these Abaseni are evidently joined with the Arabians of Sabæa and Hadramaut.

But whatever errors are to be found in ancient authors, relative to the production of spices in general, and cinnamon in particular,

³⁰ Lib. iii. p. 252. ed. Weft. and p. 250. Jones, Af. Ref. iv. 110. 113.

where he mentions a similar fable of serpents which guard the frankincense.

³¹ Κέσσις, from Κέσσις, arefacio, to dry; and hence the dry hull, peel, or shell of a plant or fruit.

³² Bochart, vol. i. p. 105. Sir William cotton.

³³ Ἡ χώρα τῶν Ἀβασηνῶν σέσι καὶ ὄσων [quod δὲ] καὶ θυλάκια καὶ ΚΕΡΠΑΘΟΝ. Bochart, vol. i. p. 166. Κέρπαθον is probably the Κέρπα of Herodotus, unless it is a false reading for Κέρπαθον or Κέρπασον, one of the terms for

still that they found their way into Egypt, Palestine, Greece, and all the countries bordering on the Mediterranean, in the earliest ages, is a fact. This admits of proof from the thirtieth chapter of Exodus, and we have traced the course of their introduction in the preliminary disquisitions of the first book.

We may now, therefore, proceed to examine the various sorts of this spice mentioned in the *Periplus*, which amount to ten; and very remarkable it is, that the modern enumeration of professor Thunberg should comprehend just as many species. Not that it is to be supposed the species correspond, but the coincidence of number is extraordinary. It is worthy of notice also, that cinnamon is a term never used in the *Periplus*; the merchant dealt only in *casia*; cinnamon was a gift for princes. There is, even in this minute circumstance, a presumption in favour of his veracity, not to be passed without observation.

It has been already mentioned in the account of Ceylon, that the ancients, who first referred this spice to Arabia, and afterwards to the *cinnamomifera regio* in Africa, as supposing it to grow in those countries because they procured it there, never mention it in Ceylon. I think, with Sir William Jones, that this is one of the obscurest circumstances in ancient commerce. Can we conceive that it grew there in any age, and was afterwards eradicated? or must we not rather conclude, in conformity to the suffrages of all the moderns, that there is no genuine cinnamon but that of Ceylon, and that the commerce itself was a mystery? The first author that mentions cinnamon in Ceylon is the Scholiast on Dionysius Periegetes; at least I have met with no other, and I mention it to promote the inquiry.

The

The ten sorts in the Periplûs are,

I. Μοσυλλιτικὴ. *Mosyllitick.* P.

So called from the port Mosyllon, where it was obtained by the Greeks from Egypt, and whither they always resorted, from their first passing the Straits of Bab-el-Mandeb. It was the casia fistula; the same as we now have from Ceylon, and imported at Mosyllon directly from India, or from the Arabian marts on the ocean, which were rivals of the Sabæans. It is mentioned by several authors as the best sort, or inferior only to zigeir, and therefore could not be native: there is indeed cinnamon on the coast of Africa, but it is hard, woody³⁴, and of little flavour. The regio cinnamomifera of Ptolemy bears no other sort but this: he places this tract at the boundary of his knowledge, that is, between Melinda and Mosambique; and if it is in any way entitled to the name, it cannot be from its own produce, but on account of the importation of the spice from India; the traders who found it there, might suppose it native, in the same manner as the early writers speak of the Mosyllitic, and which (as has been already noticed) Pliny first mentions as imported. The Mosyllitic species is rarely called cinnamon by the ancients, but casia only. Their cinnamon was exhibited as a rarity, like that of Marcus Aurelius before mentioned. Antiochus Epiphanes³⁵ carried a few boxes of it in a triumphal procession; and Seleucus Gallinicus presented two minæ of this species, and two of casia, as the gift of a king to the Milesians. The casia, or modern

³⁴ Seven different sorts Oriental, and two American, I have seen in the collection of Dr. Burgess; and an African species, which is not a bark, but a mere stick, with little

flavour. It answers well to the character of σκληροτάτη.

³⁵ Athenæus, lib. v. p. 195. lib. ix. p. 403.

cinnamon was found formerly in Java, Sumatra, and the coast of Malabar; from the coast of Malabar it found its way to Africa and Arabia; but when the Dutch were masters of Cochin³⁶, they destroyed all the plants on the coast, in order to secure the monopoly to Ceylon; and none is now met with on the coast, but an inferior wild sort, used by the natives, and brought sometimes to Europe for the purpose of adulteration.

2. Γίζειρ, Ζίγειρ, Γίζι. *Gizeir, Zigeir, Gizi.* P.

This sort is noticed and described by Dioscorides, as already mentioned; and to his description I can only add, that zigeir, in Persian and Arabic, as I am informed, signifies *small*³⁷. The smaller bark must of course be from the smaller and tenderer shoots, which is still esteemed the best; the harder and thicker bark is cut and made to roll up in imitation of this, but is inferior, though from the same plant. This at least is supposed; but I do not speak from authority.

3. Ἀσύφη. *Asuphè.* P. *Asyphemo* in Matthioli, p. 42. Perhaps for Ἀσύφηλος.

This term, if not Oriental, is from the Greek ἀσύφηλος, *asuphélos*, signifying *cheap* or *ordinary*; but we do not find *asuphè* used in this manner by other authors: it may be an Alexandrian corruption of the language, or it may be the abbreviation of a merchant in his invoice.

³⁶ The Dutch are accused of this by their rivals, as well as diminishing the growth of nutmegs, &c. in the Molucca Islands. But I observe in the account of Hugh Boyd's Embassy to Ceylon (Ind. Annual Register, 1799), an assertion, that the true cinnamon never grew

any where but in Ceylon.

³⁷ I doubt this relation at the same time I notice it; but an inquiry might still be made, whether the Greek term *casia* be not a corruption of *gizi*.

4. Ἀρωμα.

APPENDIX.

31

4. Ἄρωμα. *Aroma*. D. P.

Aroma is the general name for any warm spice or drug; but it is twice inserted in a list of casias, and is therefore probably a species as well as the others. It would intimate an aromatic smell or flavour, and is possibly one of superior quality. It is remarkable that Moses uses the same term of sweet-scented cinnamon.

5. Μώγλα. *Móglā*. P.

A species unknown.

6. Μοτώ. *Motō*. P.

A species unknown.

7. Σκληροτέρα. *Sclerotera*. D. P. *Xylo Cassia*, *Wood Cinnamon*. D.

From the Greek Σκληρός, hard. This is a term which occurs frequently, and perhaps distinguishes the *casia lignea* (wood cinnamon) from the *casia fistula* (cannelle or pipe cinnamon): it may, however, signify only a hard and inferior sort, in opposition to brittleness, which is one of the characters of the superior species.

8, 9, 10. Δάκα, Κίττα, Δάκαρ. *Dooaka*, *Kitta*, *Dacar*. P.

Dacar is noticed by Dioscorides, Matthioli, p. 42. and Moto by Galen. F.

All unknown. But Salmasius, and other commentators, agree in supposing them all to be species of the same spice.

Under *Cassia*, in the Digest, are mentioned,

1. *Turiana vel Thymiama*, and
2. *Xylo Cassia*.

Turiana and Thymiama are expressions for the same thing in Latin and Greek—Incense. Kasia was mixed perhaps with incense in the temples, as well as other aromatic gums and odours. See Hoffman in Thymiama. But Dr. Falconer supposes these not to be different species of casia, or mixtures with it, but simply thus and thymiama; which, however, xylø cassia seems to contradict. He thinks also, "that turiana may be the laurus cassia which grows in Spain, on the river Turia or Guadalaviar."

"Floribus et roseis formosus Turia ripis."

Claudian de Laudibus Serenæ, 72.

These are the ten sorts enumerated in the *Periplus*³⁸. Professor Thunberg, who visited Ceylon in his voyage from Batavia, reckons ten sorts likewise. Four of nearly equal value and excellence; three that are found only in the interior above the Ghauts³⁹, in the government of the king of Candi; and three which are not worth gathering. The most remarkable which he mentions are:

The raffe⁴⁰ or penni-curundu, honey cinnamon, and capuru curundu, or camphor cinnamon, from the root of which camphor is distilled: this last is found only in the interior. The cinnamon for the European market was collected in the woods by the natives employed in the Dutch service, but has since been planted on the sandy downs on the coast. These plantations, besides their convenience, are so thriving, that the practice is likely to be continued. Can I conclude this account without observing, that this rich and

³⁸ Two other sorts may be collected from coast is a level, the interior is high and table land. All above the mountains is still possessed by the king of Candi; the Dutch had, and

³⁹ I use the term improperly, but Ceylon English have, only the coast.

⁴⁰ See Knox's History of Ceylon, p. 16.

valuable island is now in the possession of the English; and without a prayer, that the commerce may be conducted on more liberal principles, and the natives treated more generously by them than by their predecessors? The knowledge which the ancients had of this island is treated at large in the Sequel to the Periplûs; and it is to be hoped that the present governor, Frederick North, whose mind is stored with ancient knowledge, and whose attention is alive to modern information, will communicate his researches to the public.

I have only to add, that the Sanskreet names of this spice are *Savernaca* and *Ourana*, as I learn from the *Asiatick Researches*, vol. iv. p. 235.; and that *Salmasius* mentions *Salihaca* as the Arabic appellation, which he derives from the Greek *Ξυλική*, *lignea*, or woody (p. 1306.), but which, if I did not pay great respect to his authority, I should rather derive from *Salikè*, the Greek name of the island in the age of Ptolemy.—I have now only to request that this detail, too prolix for the work, may be accepted by the reader, not as the natural, but the classical history of cinnamon.

38. Κασσίτερος. *Tin.* P.

Tin is mentioned as an import into Africa, Arabia, Scindi, and the Coast of Malabar. It has continued an article of commerce brought out of Britain in all ages, conveyed to all the countries on the Mediterranean, by the Phœnicians, Greeks, and Romans, and carried into the Eastern Ocean, from the origin of the commerce. It is only within these few years it has found its way into China in British vessels, where it is now become an article of such magnitude, as greatly to diminish the quantity of specie necessary for that market.

39. Καττυ-

39. Καττυβρίνη, Πατροπαπίγη, Καβαλίτη. *Kattyburinè, Patro-
parigè, Kabalitè.* Peripl. p. 28.

Different species of nard. - See Νάρδος. P.

40. Καυνάκαι απλοῖ ἔ πολλῶ. *Kaunakai.* P.

Coverlids plain, of *no great value* (or, according to another reading, *not many*), with the nap on one side. Hesychius and Phavorinus, cited by Hudson.

41. *Ceraunium.* D. A gem.

Salmasius says there are two sorts:

1. A pure chrystal.

2. Another red, like a carbuncle.

He thinks the chrystal to be the true *ceraunium*; and that Claudian is mistaken when he writes,

Pyreneisque sub antris

Igneæ fulminæ legere Ceraunia nymphæ.

42. Κολανδιόφωνα. *Kolandiphonta.* P.

Large ships on the coast of Cōromandel, in which the natives traded to Bengal and Malacca. They had vessels also called *fangara*, made of one piece of timber, which they used in their commerce on the coast of Malabar. The *monoxyla* of Pliny were employed in bringing the pepper down the rivers to the coast. Lib. vi. 23.

43. Κοράλιον. *Coral.* P.

44. Κόστος⁴¹. *Costus, Costum.* D. P.

Is considered as a spice and aromatic by Pliny, lib. xii. c. 12.

⁴¹ It is worthy of remark, that in the enumeration of gifts made by Seleucus Callinicus to the Milesians, there should be this distinction:
Frankincense - - 10 talents.

It is called radix, *the root*, pre-eminently, as nard is styled *the leaf*. Costus being, as we may suppose, the best of aromatic, *roots*, as nard or spikenard was the best of aromatic *plants*. This supposition explains a much-disputed passage of Pliny. Radix et folium⁴² Indis est maximo pretio: the (root) costus, and the (leaf) spikenard, are of the highest value in India. Radix costi gustu fervens, odore eximio, frutice alias inutili: the root of the costus is hot to the taste, and of consummate fragrance; but the plant itself, in other respects, without use or value. It is found at the head of the Pattalênê, where the Indus first divides to inclose the Delta; of two sorts, black and white, the black is the inferior sort, and the white best. Its value is sixteen denarii⁴³, about twelve shillings and eight pence a pound.—Thus having discussed the costus or root, he proceeds to the leaf or plant: De folio nardi plura dici par est; but of this hereafter. It is here only mentioned to give the true meaning of the passage.

This root is said, by Salmasius, to grow in Arabia as well as India; and I do not find that it has acquired any European name, though it was formerly much used in medicine, and called the Arabian, or true costus. It is confounded by Gothofred, first with costamomum, which he derives from Mount Amanus, and secondly, with carda-

Myrrh - - - 1 talent.

Casia - - - 2 pounds.

Cinnamon - - - 2 pounds.

Costus - - - 1 pound.

The reason is evident; frankincense and myrrh were procurable in Arabia, which bordered on his own kingdom. Casia, cinnamon, and costus, were East India commodities. See Chishull, *Antiq. Asiat.* p. 71.

⁴² But *the leaf* is applied pre-eminently to the betel in India to this day. See Herbelot

in voce. Son nom le plus commun est Betré ou Betlé, dont le premier se prononce aussi barra, qui signifie chez les Indiens, en general la feuille de quelque plante, et qui s'applique par excellence à la feuille de Tembul, en particulier.

Pliny has applied the leaf *par excellence* to the nard, and then confounded several properties of the betel with it. See *Nardos*.

⁴³ The numbers in Pliny are dubious.

momam.

momum. (See Salm. p. 400. & seqq.) I have supposed that amomum, as it is found in cinn-amomum, carda-momum, and cost-amomum, implies the warmth and gentle pungency of an aromatic; for the amomum itself, if we know what it is, is of a hot, spicy, pungent taste. (Chambers's Dict. in voce.) But Salmasius and Hoffman seem to trace it to a Greek origin (*ἀμωμός*, inculpatus), and to signify unadulterated. They apply it likewise to momia or mumia, because the amomum was particularly used to preserve the body from putrefaction. It was found in India and Syria, but the best in Arabia (imported?). The Arabian is white, sweet, light of weight, and fragrant; the Syrian is heavier, pale, and strong scented. Gothofred, from Isid. xvii. 9. Dioscorid. lib. i. c. 14. Plin. i. 2. and xii. 24. Dioscorides says it grows in Armenia, Media, and Pontus, c. 14.; but the whole account is very dubious; all speak of its warmth and pungency; but let us apply this to the costus, which, in regard to its unadulterated state, and its qualities, is still much questioned: its properties are—"I. Fragrance: *Odorum causa unguentorumque et deliciarum, si placet etiam superstitionis gratia emuntur quoniam thure supplicamus et costo.* Plin. xxii. 24. *Costum molle date et blandi mihi thuris odores. Ure puer costum Assyrium redolentibus aris.* Propert. lib. iv. Πλειστην εχων καὶ ἡδαιαν οσμην. Diof.—II. Pungency; both costus and costamomum are said to be of a warm, pungent quality: Πλειστης δὲ τῆς δριμείας καὶ θερμῆς μετεχει ποιότητος καὶ δυναμείως. Galen. *Gustu fervens*, Pliny.—It is mentioned in the Geoponica, as one of the ingredients for making the spiced wine, called *πανακεία*. Lib. vii. c. 13. But the best writers on the costus of the ancients think it is not ascertained."

F. F. *Pseudocostus nascitur in Gargano Apuliæ monte.*—Of the costus brought from the East Indies there are two sorts, but seldom

it was Cyrène in Africa, where it was so much a staple commodity, that the Cyrenian coins were marked with the silphium. It is now brought from Siam and Sumatra; is used in medicine and cosmetics. See Chambers in voce, and Gothofred, who cites Columella, vi. 17. lfid. xvii. 9. It is vulgarly called Gum Benjamin. Pliny mentions it, inter eximia naturæ dona, xxii. 23.

49. Λέντια. *Linen, from the Latin lintea.* See Ιματισμός. P.

50. Λίβανος. *Frankincense*⁴⁵. D. P.

51. Λίβανος ὁ περατικός. *From beyond the Straits of Bab-el-Mandeb.* P.

A gum or resin sufficiently common in Europe still; originally introduced from Arabia only, and used by the nations on the Mediterranean under the denomination of thus and libanus which are synonymous. Its name is derived from לבן, laban, white, Heb. and لوبن, loban, Arabic, because the purest sort is white⁴⁶ without mixture. See Bochart, tom. i. p. 106. Hence libanus and the corrupt olibanum. M. Polo calls it *encens blanc*. Bergeron's Col. p. 153. It was chiefly brought from Hadramaut or Sagar, a tract of Arabia on the ocean. The best sort is likewise in small round grains called χόνδρος, from the Arabic كنور, chonder. Bochart, ibid. But Niebuhr says, that the libanus of Arabia at present is greatly inferior to that brought from India, as being foul, mixed with sand and stones; he adds also, that the plant which produces it, though cultivated at Keschin and Schahr (Sagar) is not native, but originally from Abyssinia. See Niebuhr. Arabia, tom. i. p. 202. ii.

⁴⁵ Olibanus, oleum Libani.

⁴⁶ It grows yellow by keeping.

Dr. Bur-

gers has many specimens of Arabian libanus.

p. 131, in which opinion he is supported by Bruce. The Arabians paid a thousand talents of frankincense by way of tribute to Persia. Plin. xii. 17. Herodot. When Niebuhr was in Arabia, the English traders called the Arabian sort incense of frankincense, and the Indian or better sort, benzoin, and the worst benzoin was esteemed more than the best incense. The Arabs themselves preferred the Indian to their own, and called it bachor Java, either because it grew in that island, or was imported from Batavia. See also d'Anville, Georg. Anc. tom. ii. p. 223.

52. Λιθίας Ὑαλῆς πλείονα γένη καὶ ἄλλης Μυρρίνης τῆς γενομένης ἐν Διοσπόλει. *Glass and Porcelane made at Diospolis.* P.

1st. Lithia Hyala. Several sorts of glass, paste, or chrystal.

See article Λιθία διαφανής.

2d. Λιθία Μυρρίνη. P.

Which Salmasius says, ought always to be written morrina, not myrrhina, myrrina, murrhina, or murrina. And he maintains that it is certainly the Oriental porcelane. It is here evidently joined as the adjective to Λιθία, as it is afterwards (p. 28. Peripl.) mentioned with Λιθία ὀνυχίνη, and connected in a similar manner, Λιθία ὀνυχίνη καὶ Μυρρίνη, where it is specified as brought down from the capital of Guzerat, Ozênè, (Ougein,) to the port of Barygaza or Baroach. All this seems to confirm the opinion that it was porcelane procurable in India at that time, as it now is; and that it was brought into Egypt by the ships that went to India. But what is more extraordinary is, that it was imitated in the manufactories of Diospolis in Egypt, just as our European porcelane is now formed upon the pattern of the Chinese.

But

But in opposition to this opinion, Mr. Dutens, under the article Sardonyx, supposes that stone employed and cut, to form the Murrhina, on account of its beauty, and the great number of strata in a small compass, that the Sardonyx was formed into small vases, as well as various sorts of agates, there can be little doubt; but why after cutting, it should lose the name of sardonyx, and take that of murrhina, is still to be explained; and how they should be baked in Parthian furnaces, or imitated at Diospolis, must likewise be inquired. The best argument in favour of Mr. Dutens' opinion, is, the connecting it with *ὄνυχιν* in the invoice of the Periplus, *Λιβία ὄνυχιν καὶ Μυρρίν*, and Lampridius likewise says of Heliogabalus, as cited by Gesner, *myrrhinis et onychinis minxit*. These instances are so strong, that if the other qualities attributed to this precious commodity could be accounted for, and rendered consistent, the suffrage of a writer so intelligent and well informed, ought to prevail. Gesner produces a variety of authorities from Jo. Frid. Christius, which confirm this opinion of Mr. Dutens, or at least prove it a fossil. The principal one is from Pliny, xxxvii. 2, and xxxiii. proem. *Chrysellina et myrrhina ex eadem terra fodimus*, so that it is positively asserted to be a fossil from Karmania; while the colours assigned to it, of purple, blue and white, with the variegated reflexion from the mixture, suit much better with porcelane. Martial styles it *myrrhina picta*, xiii. p. 110, and notices it as capable of containing hot liquors, a property in which it seems opposed to glass or crystal.

Si calidum potes ardentis murra Falerno

Convenit, et melior fit sapor inde mero.

The *sapor* here, and the *odor* mentioned by others, suit the sardonyx no better than porcelane; but the testimony of Propertius is

as direct to prove it factitious, as that of Pliny to prove it a fossil.

Murreaque in Parthis pocula cocta focis, iv. 5. 26.

And to resist this evidence, Christius contends, that the Murrea are not the same as Myrrhina; but an imitation like the Diospolite manufactory. I am by no means qualified to decide in this dispute, where the difficulties on either side seem unsurmountable; but as my own opinion inclines rather in favour of porcelane, I will state my reason plainly, and leave the determination to those who are better informed.

Porcelane, though it is factitious, and not a fossil, is composed of two materials which are fossil, the petuntze and the clay. The former, the Chinese call the bones, and the latter the flesh. The place of petuntze is supplied, in our European imitations, by flints reduced to an impalpable powder; and the vitrification of the petuntze or the flints in the furnace, gives to porcelane that degree of translucency it possesses. The petuntze is supposed to be found of late in England. Now it is a well known fact, that the ancient composition of porcelane in China, was said to be prepared for the son by the father, and to lie buried for several years before it was prepared for the furnace; and the inferiority of the modern porcelane, is thought, by the Chinese connoisseurs, to arise from the neglect of this practice. May not this have given rise to the opinion that the murrhina were a fossil production?

Another consideration arises from the words employed by Pliny to express the murrhine vessels, which are *capis* and *abacus*, signifying, if Hardouin be correct, literally, the cup and saucer, and the *capis* which was a vessel used in sacrifices, was regularly a vas fictile.

But

But the last circumstance I shall mention is, the size of that murrhine vessel mentioned by Pliny, which contained three pints (sex-tarios). Can it be supposed that a sardonix was ever seen of this size? he adds indeed afterwards, *amplitudine nusquam parvos excedunt abacos*, which, to make it consistent, must be qualified with the exception of the former vessel that contained three pints. He has other particulars which lead us again to porcelane, *crassitudine raro quanta dictum est vasi potorio*, and in another passage, *humorem putant sub terra calore densari*, which he certainly applies to the concoction of a fossil, but which bears no little resemblance to the maturing of the materials before mentioned.

After all, if it was a gem, it is astonishing that the sardonix should be mentioned by no ancient author, as appropriated to this purpose. If it was factitious, it is equally strange, that nothing stronger should appear on that side of the question, than the capis of Pliny. The distinction could not have been mistaken. The country he assigns to the production, is Karmania, in the kingdom of Parthia, and that it came from Parthia⁴⁷ into Egypt, to the countries on the Mediterranean, and to Rome, seems evident from a variety of authorities; and that it might well do, if we consider that Parthia communicated with India by means of the Persian Gulph, and possibly on the north with China⁴⁸ itself, by means of the caravans. The mention of Karmania by Pliny, as the country where the murrhina were obtained, favours the supposition of procuring these vessels from India;

⁴⁷ The kingdom, not the province, as we may see from a former citation noticing Karmania.

⁴⁸ That there was an intercourse with the Seres on the north of the Himmalu mountains, and that exchange of commodities took

place at some frontier, like that between the Russians and Chinese at Kiatcha, is evident from Ptolemy, Pliny, and the Periplus. Whether the Seres were Chinese, or an intermediate tribe between India and China, is not material in the present instance.

for the communication of Karmania with Scindi and Guzerat is almost immediate, and certainly prior to the navigation from Egypt to that coast. But in Guzerat they were obtained, when the author of the *Periplus* was employed in that trade; and their arrival at the market of Baroach, from the interior of India, may induce us to suppose, that they came into India from the north.

The immense value of these vessels at Rome might well arise from their scarcity. They were first seen there in the triumphal procession of Pompey; and it must be observed that Pompey returned from the shores of the Caspian Sea. They were afterwards introduced into use at the tables of the great, but of a small size and capacity, as cups for drinking. Afterwards one which held three sextarii or pints, was sold for seventy talents⁹; and at length Nero gave three¹⁰ hundred for a single vessel. The extravagance of the purchaser might, in this instance, enhance the price, but the value of the article may be better estimated by the opinion of Augustus, who, upon the conquest of Egypt, selected out of all the spoils of Alexandria a single murrhine cup for his own use. Now, therefore, if the murrhine was porcelane, it may be a piece of information acceptable to our fair countrywomen, to know that Cleopatra did not indeed sip her tea, but drink her Mareotick wine out of china.

I have not been able to consult the work of Christius, but take the account of his argument from Gesner, and I refer the reader for further information to Gesner in voce, to Chambers's Dictionary, to Salmasius, Plin. Exercit. and to an express dissertation in the Volumes of the Academy of Belles Lettres, which I have formerly seen, but have not now an opportunity of consulting. I recollect that

⁹ £.13,562.

¹⁰ £.58,125.

The sums seem as immoderate for a cup of sardonyx as for porcelane.

it is in favour of the opinion, that murrina and porcelane are the same.

53. Λθία διαφανής. P.

A transparent substance of stone or pebble, but it is probably here the glass made of stone as clear and bright as chrystal, and the same as *Γαλή*, Hyalè mentioned before. Salmasius (p. 1096.) has a very curious quotation from the Scholiast on Aristophanes ad Nubes, Act ii. scene 1. "We call Hyalos (he says) a material made of a certain plant burnt, and waisted by fire so as to enter into the composition of certain [glass] vessels. But the ancients appropriated the term hyalos to a transparent stone called kruon, or chrystal."—This perfectly accords with the manufacture of glass, composed of sand, or flints, and the ashes of a plant called kali or vitraria in Narbonne, Salm. ibid. and Chambers in voce. But glass has its name from *glastum* or woad, *the blue dye*, because common glass was of that colour, but the transparent stoney glass [flint glass] here mentioned seems to take its name [*διαφανής*] transparent, and [*Γαλή*] chrystalline, from its superior purity and imitation of the chrystal. The whole passage in the Scholiast is interesting, and worth consulting. Nub. act ii. scene 1. l. 766. Τὴν Ἐγλαῖον λέγεις.

"The hyalos or chrystal is formed circular and thick for this purpose [the purpose of a burning glass], which being rubbed with oil and warmed, they bring near the wick of a lamp and light it." [it was rubbed with oil probably to clean it, but why warmed

See Vossius ad Melam, Varior. ed. 1722, who cites Pliny, lib. xxii. c. 1. Simile plantagin glastum in Gallia, quo Britannorum conjuges nurusque toto corpore oblite. Vossius adds, apud Cambro-Britannos isatidis proventus glas appellatur, et caeruleum colorem. Herba isatis is woad.

does not appear.] “Homer knew nothing of the chryſtal, but “mentions amber:” [true, for with Homer κρύσταλλος is always ice.]

Hence it appears that chryſtal was known to Ariſtophanes, and the application of it to the purpoſes of a burning glaſs; that glaſs was known in the time of the Scholiaſt, and that Homer knew nothing of either. The uſe of a pebble or chryſtal, however, to kindle fire, is known at leaſt as early as the writings of Orpheus *περὶ λίθων*. And if the writings attributed to Orpheus be really the work of Pythagoras, or a Pythagorean, as Cicero ſuppoſes, *De Nat. Deorum*, the knowledge of this property is ſtill very old. But Tyrwhitt has overſet all the antiquity of this Orpheus, and brings the poem *Περὶ λίθων* down to the lower empire—to Conſtantius, or even lower. See *Præf.* p. 10. et ſeq.

Why glaſs was ſo late before it was introduced to the knowledge of the Greeks and Romans, or other nations on the Mediterranean, ſeems extraordinary; but De Neri (*Art. de la Verrerie*, Paris, 1752) informs us, that glaſs is not mentioned in the Old Teſtament, and appears in the New only, in the epiſtles of St. Paul, St. James, and the Revelations; that of the Greeks, Ariſtotle is the firſt who makes expreſs mention of it, and aſſigns the reaſon why it is transparent, and why it will not bend, but in a dubious paſſage; in Rome it was but little known before the year 536, U. C. and was not applied to the uſe of windows till near the reign of Nero. Seneca, *Ep.* xc. This ſeems the more extraordinary as the art of making glaſs was known in Egypt in the earlieſt times. The mummies of the Catacombs near Memphis are ornamented with glaſs beads; and it has lately been diſcovered that the mummies of the Thebaid are decorated with the ſame material; which carries the invention much higher, poſſibly to

to 1600 years before our era (Ripauid's Memoir). If this be a fact, we arrive at the Diospolis of Upper Egypt, the Thebes of Homer for the origin of the invention, but the Diospolis of the Periplûs is in the Lower Egypt on the Lake Mensaleh, though the name and site is much disputed, as we learn from d'Anville, (Egype, p. 92,) but at Tennis on that Lake, the French found remains of brick, porcelane, pottery, and glass of all colours, (Memoirs, p. 223,) and at the Lower Diospolis, we find the same substances noticed by the Periplûs with the addition of wine, dipse, and an imitation of the murrhine vessels. Strabo informs us, that he conversed with the manufacturers of glass at Alexandria, who told him that there was a hyalite earth; which of necessity entered into their compositions of a superior sort, and particularly in the coloured glass, but that still greater improvements had been made at Rome, both in regard to colours and facility of operation (lib. xvi. p. 758.). The same manufacture was continued afterwards at Tyre and Berytus; and at Tyre it was found by Benjamin of Tudela, as late as the year 1173. (Bergeron, p. 17.) At Rome it was certainly known before the second Punick war, because Seneca mentions *rusticitatis damnant Scipionem quod non in Caldarium suum specularibus diem admiserit*, but this was in the Bath or Sudatory; in houses it was introduced later, *vitro absconditur Camera*, Ep. 86, et quædam demum nostra memoria prodisse scimus ut speculariorum usum perluciente *testa* clarum transmittentium lumen; but *testa* does not quite express *glass*. Martial mentions glass applied to the hot-house or green-house, lib. 8; and drinking glasses he calls *chrystalla* (lib. x. 59, Ed. Fitzger.). Pliny also writes, *maximus tamen honos est in candido translucentibus, quam proximâ chrystalli similitudine, usus vero ad potandum argenti metalla et auri pepulit*. Lib. xxxvi. 26.

From which we learn, that the Romans used drinking glasses as we do, in preference to gold or silver, and that the material was not *vitrum*, but the white flint glass like chrystal, as ours is. Gibbon has observed, that Augustus knew not the comfort of clean linen or glass windows, but glass windows were within a century after his time adopted in Rome. In England we are indebted to Theodorus, archbishop of Canterbury, who introduced glass windows, music, geometry, and classical learning into England about the year 670. Bede, Ec. Hist. lib. iv. c. 2.

That clear or flint glass assumed its name from *ῥαλη*, chrystal, is still more apparent from a passage of Diodor. Sic. lib. ii. p. 128. ed. Wessel. where mention is made of both sorts, the factitious and native *ῥαλον*, as he writes it. The glass coffin of Alexander is called *ῥαλίνη*, by Strabo, lib. xvii. p. 794. See Herod. iii. p. 206. et Wessel. not. et Diod. ii. p. 15.

54. Λίθος καλλισανός, καλλαινός. P. *Callain Stone*.

The Lapis Callais or Callainus of Pliny is a gem of a pale green colour found in Caucasus, Tartary, and the best sort in Karmania; it is called an emerald by Ramusio, and it was possibly one of those substances which Dutens, says the ancients, mistook for the emerald, and which he calls Peridot, Spath, Fluor, and prime d'Emeraude, the distinctions of which are attended to by few, except jewellers or collectors; others think Callais and Callainus two distinct stones; the Peridot is a pale green, inclining to yellow. Id.

Salmasius writes it Callinus, and says it may be a pebble or agate, inclosed in another*, and that it is loose and rattles; this Pliny calls

* But he mentions it as a topaz, and says, blue, why not a turquoise? which is still a there are topazes of two different colours; if favourite stone in the East.

Cytis, xxxvii. 56. Hard. Cytis circa Copton nascitur candida, et videtur intus habere petram quæ sentiatur etiam strepitu.

55. Ἄσθος ὀψιδίος. P. *Opfian Stone.*

Probably serpentine or hæmatite, in the opinion of Dr. Burges. Salmasius objects to Pliny for calling it opsidian, or saying it was discovered by Opsidius. In Greek it is always opfian, and is a green stone very dark, approaching to black. It was found in the islands of Ethiopia; and from taking a high polish was used by the emperor Domitian to face a portico, so that from the reflection he might discover if any one was approaching from behind.

The opsidian stone, mentioned by Pliny, is very dark but translucent, and a factitious sort of it which he likewise notices, seems very much to resemble the material of which our brown or red tea-pots are composed. Totum rubens, atque non translucens, hæmatinon appellatum. See discourse in the Memoirs of the Academy of Sciences. The specimens of this stone, which I have seen, are so dark that the green cast can only be discovered by holding them in a particular position. The closeness of their texture seems to admit of any degree of polish that the artist may be disposed to give them.

The specimen which I saw was brought from Egypt by a Gentleman who had visited the country: it was esteemed such in Egypt, and acknowledged for opfian by several of the most curious observers at Rome; and it exactly answers the description of Isidorus, adduced by Hardouin on this passage: est autem niger, interdum et virens, aliquando et translucidus, crassiore visu. And again: obsidius lapis niger est, translucidus et vitri habens similitudinem. Isidor. lib. 16. Orig. cap. 15. and cap. 4. That opfian and obsidian have been confounded,

founded, or applied to different substances, may be allowed; but the opsidian of Pliny came from Æthiopia, and so did the opsidian of the Periplus; and whatever be the name, the same fossil seems to be intended. How it may be applied by others, concerns not the present question; and if the etymology be Greek (from ὀπτομαι or ὀψις), it might be applied to any polished stone which reflects images. It is used by Orpheus under opallius, lin. 4. in what sense I pretend not to determine; but his classing it under the opal, which is clouded, and specifying its pitchy colour (κ) πίτυος δάκρυσι λαβέμενον ὀψιανόιο) and stone-like appearance, petrified, as he supposed, from the exudation of the pine, makes me suppose it the same as Pliny describes, when he mentions the imitations of it and the stone itself: In genere vitri et obsidiana numerantur, ad similitudinem lapidis quem in Æthiopia Obsidius invenit, nigerrimi coloris, aliquando et translucidi crassiore visu, atque in speculis parietum pro imagine umbras reddente. M. Dutens (p. 66.) says, it is a volcanic glass, such as is found about Mount Etna and Mount Vesuvius; but instead of solving the difficulty, about which, he says, so many learned men have disputed in vain, this only adds to it; for if it was found in Italy and Sicily, why should it be sought for in Ethiopia, almost at the mouth of the Red Sea, and imported from Egypt at a prodigious expence?

56. Λύγδος. *Lygdus*. P.

A beautiful white marble, or rather alabaster, used to hold odours; Ramusio. Salmasius says, an imitation of this alabaster³³ was formed of Parian marble, but that the best and original lygdus was

³³ Unguenta optime servantur in alabastris. Plin. lib. xiii. p. 3.

brought

brought from Arabia, that is, as noticed in the *Periplus*, from Moosa. Salm. p. 559.

57. Λύκιον. *Lycium*. P.

A thorny plant, so called from being found in Lycia principally. A juice from which was used for dying yellow, mentioned by Pliny and Dioscorides. The women also, who affected golden locks, used it to tinge their hair. Salm. p. 1164. Why this should be sought in Scindi, if it was found in Lycia, does not appear. It is found now in the shops by the name of the yellow-berry, box thorn, grana d'Avignon. Dr. Burgefs. *Lycium*, in Pliny, is a medicine derived from the *Garyophyllon*, lib. xii. c. 15. Hardouin, who adds *Lycium porro quid sit ignorari etiam a peritis herbariis pronunciat anguillara*, lib. de *Simplic. pars. iii. p. 62*. Nos Clusio credimus esse *Hacchic Goanorum*.

58. Λωδινες. *Lodices*. P.

Quilts or coverlids.

ἢ πολλὰ ἀπλοὶ καὶ ἐντόπιοι.

Coverlids plain and of the country manufacture at Moosa.

M

59. Μαργαρίται, p. 34. D. P.

Pearls, fished for near Cape Comorin, where the fishery still continues, or at the Lackdive Islands, formed a great article of commerce on the coast of Malabar.

60. Μαλάβαρον.

60. Μαλάβαθρον. *Malabathrum*. D. P. *Betel*.

In order to avoid the confusion of ancient authors, we must consider this article under two heads:

First, as an Unguent, Odour, or Perfume;

Secondly, as the Betel.

First, as an unguent or perfume, it is certainly assumed by Horace:

Coronatus nitentes

Malobathro Syrio capillos. Hor. lib. ii. ode vii. 8, 9.

and by Pliny³⁴ when he makes it, with all the fragrant odours of the East, enter into the royal unguent of the kings of Persia. (Lib. xiii. c. 2.) And again (lib. xii. c. 12, or 26 Hardouin,) where he mentions the nard of Gaul, Crete, and Syria; the last agreeing with the Syrian odour of Horace, and almost ascertaining the error of confounding *Spikenard* with the betel. So likewise (lib. xii. c. 59.) Hard. *Dat et malobathron Syria ex qua exprimitur oleum ad unguenta*; but in the same chapter he says, *sapor ejus nardo similis esse debet sub linguâ*; and (lib. xxiii. c. 48. Hard.) *oris et halitus suavitatem commendat linguæ subditum folium*: in which sense, as Dioscorides also testifies, it is a masticatory, and not an unguent. Added to this, he applies the titular distinction of *hadrosphærum*, *mesosphærum*, and *microsphærum*, to the *spikenard* (lib. xii. 26. Hard.), which Salmasius, Matthioli, and almost all the

³⁴ It appears by Pliny, lib. xiii. c. 2, that almost all the fragrant odours of the East entered into the composition of their unguents. In the royal Persian unguent no less than twenty-six odours are enumerated, and among them the malobathron, which is not so properly an odour as a stimulant, if it be the betel. But it is frequently confounded with the

Spikenard, the first of odours, which is pre-eminently called *folium*, or the leaf, in opposition to *costus*, or the root. But the betel-nut being wrapt in the areca leaf has probably given rise to the mistake. See Pliny, lib. xii. c. 12, where the *hadrosphærum*, *mesosphærum*, *microsphærum*—all distinctions of the betel, are falsely applied to the *spikenard*.

commentators, agree in assigning specifically to the betel; and to the betel, betre, or petros, they are applied in the Periplûs. (p. penult.) The error of Pliny, and his fluctuation in making it both an unguent and a masticatory, arises from his considering the spikenard to be *the leaf*, κατ' ἐξοχὴν (which it is not, but a root), and not considering, or not knowing, that the betel is, above all others, *the leaf*, used with the areka-nut, and the constant masticatory of the Orientals from Malabar to Japan.

Secondly, that it is a masticatory is confirmed by Dioscorides; for he says (ὑποτίθεται δὲ τῇ γλώσσῃ πρὸς εὐωδίαν σώματος), it is placed under the tongue to sweeten the breath, and it has (δύναμιν τινὰ εὐσπομαχωτέραν) the virtue of strengthening the stomach. If any native of the East were at this day asked the properties of betel, no doubt he would specify these two particulars above all others. But it should seem that Dioscorides was aware of the confusion caused by mistaking the nard for the betel; for he commences his account by saying, that some believe the malabathrum to be *the leaf* of the nard, deceived by the similarity of the odour; but the fact is far otherwise. (See Matthioli, p. 40.)

The author of the Periplûs knew that Petros was the leaf, and that when the whole composition was made up together, it was called Malabathrum; for he mentions the method of obtaining it by the Sêres from the Sêfatæ, and their exportation of it again. (p. ult.) We know likewise that the procuring it at the extremity of the East, is consonant to modern observation; for though it is used in India, it is indispensable in all ceremonies in Ava, Pegu, China, and the islands of Java, Sumatra, &c. It is now well known to consist of the areka-nut, the betel-leaf, and a mixture of lime from sea-shells,

and sometimes with the addition of odoriferous drugs. The areka-nut has the appearance of an oblate nutmeg, hard as horn, and when cut, resembling the nutmeg in its mottled appearance. Dr. Burgefs informs me, that the unripe nutmeg is sometimes pressed, and an aromatic liquid procured, fragrant in the highest degree, which perhaps may have some relation to the perfumed unguent of the ancients. The betel is a species of the pepper-plant, and the lime is called chinam, the use of which turns the teeth black; and black teeth consequently, from the universality of the practice, are the standard of elegance in all those countries where the usage prevails. For the natural history of the ingredients, and the ceremonies attending the custom, I refer to Sir G. Staunton's Chinese Embassy, vol. i. 272.; Mr. Marsden's Sumatra, p. 242.; and Mr. Turner's Embassy to Thibet, pp. 285. 343.

The name of this masticatory varies in different countries, but its Arabick name is Tembul, Tembal, or Tambal; and from tamala, added to betrè or bathra, tamala-bathra is derived, and the malà-bathra of the ancients, according to the opinion of Salmasius.—
 “But Stephens (in voce) gives a different etymology: Ferunt apud
 “Indos nasci in ea regione quæ Malabar dicitur, vernaculâ ipsorum
 “linguâ Bathrum, sive, Bethrum appellari, inde Græcos composita
 “voce nominasse Μαλάβαρον.” F. F. What adds to the probability of this is, that the coast was called Malè, till the Arabs added the final syllable. And let it not be thought fantastical, if we carry our conjectures farther east—to the country of the Malays, in the Golden Chersonese; for in that part of the world the custom is far more prevalent, and there the best ingredients are still procured. The Malays were not unknown, by report at least, to the Greeks; for
 Ptolemy

Ptolemy has a Malai-oo-Colon (Μαλαίη καλον ακρον, p. 176, not far from the Straits of Malacca, the country of the Malays.

From the practice of the natives, another circumstance occurs worthy of remark; for it is said, "Sinæ in mutuis visitationibus
"folia betel manu tenent, ac cum Areka et calce in patinis ligneis
"in benevolentiae signum offerunt hospiti; dum utuntur, primo
"parum Arekæ mandunt, mox folium betel calci illitum, *exemptis*
"prius nervis ungue pollicis, quem propterea longum atque acutum
"habent." Nieuhoff, pars ult. Legat. Batav. p. 99. F. F.—I owe this curious passage to the suggestion of Dr. Falconer, and I cannot help thinking that it corresponds with the expression in the Periplus, ἐξινιάσαντες καλάμης τὰς λεγομένους Πέτρους; ex arundinibus illis quas petros appellant *nervis fibrisque extractis*; though applied to the making up of the composition, rather than the use of it.

The account of the ingredients must be left for the natural historians to develop; but the classical history of them, such as I have been able with the assistance of my friends to collect, has been drawn from Dioscorides, Pliny, Matthioli, Salmasius, and the other authorities cited, with much labour and attention; and if it contributes to remove the obscurity in which the question was involved, let it not be received as a tedious discussion, but as the effort of an author, who was engaged in the inquiry, before he was aware that an acquaintance with natural history would become so material a part of his duty.

62. Μάκειρ. *Macer.* P.

An aromatic from India; the bark red, the root large. The bark used as a medicine in dysenteries. Plin. xii. 8. Salm. 1302.

63. *Margaritæ. D. P. Pearls.*

The Pearl Fishery is mentioned in the *Periplus*, both at Bahrein in the Gulph of Persia, and at the Island of Ceylon; but I am obliged to Mr. Falconer for pointing out "the authority of Pliny, lib. ix. 35. or 54. Hard. and lib. vi. 22. or 24. Hard.; the former of which is of importance, as marking out not only the fishery at Ceylon, but at Perimoola, and the Sinus Perimoolus." E. For the Perimoëla of Ptolemy is not far from the Straits of Malacca, and approaches (though not nearly) to the Sooloo Fishery of Mr. Dalrymple. Whether pearls are still taken in the Gulph of Siam or Cambodia, I am not informed, but they might well be brought thither from Borneo; and the information is highly interesting. In the same passage it is noticed by Pliny: *Principium ergo, culmenque omnium rerum pretii, Margaritæ tenent.* But it is not true that the pearl sold higher at Rome than the diamond; for, lib. xxxvii. c. 4. the diamond has the highest value; the pearl, the second; and the emerald, the third.

64. *Marucorum Lana. D. Wool of Maruceri.*

The text is corrupt. Ramusio joins it with the following article, *Fucus*, which he reads *Marucorum Succus*; but what it means is not easily discoverable. Dr. Falconer, with great appearance of probability, supposes it to be the wool of the Thibet sheep, of which shawls are made.

65. *Μάχαιραι. P.*

Knives or canjars worn at the girdle.

66. *Μελίεϋθα.*

66. Μελίεφθα χαλκαὶ. P.

Brass^{ss} or copper, prepared, as Ramusio says, for vessels of cookery. But rather for ornaments of women, as bracelets, anklets, and collars. No usage of Μελίεφθα occurs elsewhere; but metals were prepared with several materials to give them colour, or make them tractable or malleable. Thus χολόεαφα in Hesychius was brass prepared with ox's gall to give it the colour of gold, and used like our tinsel ornaments or foil for stage dresses and decorations. Thus common brass was neither ductile nor malleable, but the Cyprian brass was both. And thus, perhaps, brass, μελίεφθα, was formed with some preparation of honey. Pliny uses coronarium possibly in reference to the same application of it as Hesychius mentions, and seems to use Cyprium in the sense of copper. Cyprium regulare is the best copper, and every metal is called regulare when purified, omne, purgatis diligentius igni vitis, excotisque, regulare est. And again Cyprium tenuissimum quod coronarium vocant, xxxiii. 9.

67. Μέλι καλάμινον τὸ λεγόμενον σάκχαρι. D. P.

Honey from canes. Sugar.

In Arabic, shuker, which the Greeks seem first to have met with on the coast of Arabia, and thence to have adopted the Arabic name. It is here mentioned on the coast of Africa, where the Arabians likewise traded, and either imported it themselves from India, or found it imported; it was evidently not found in that age growing in Africa. The Sanskreet name of sugar is ich-shu-casa, and from the two middle syllables the Arabic shuka, or shuker. Af. Research. iv. 231. See Du Cange, article Cannamele, Cannæ Mellis, mentioned

^{ss} This article is very dubious.

by Abbertus Aquensis, William of Tyre, and others, as introduced from the East into Cyprus, Sicily, &c. in their age.

68. Μελίλωτον. *Honey Lotus.* P.

The lotus or nymphæa of Egypt. The stalk contains a sweet and eatable substance, considered as a luxury by the Egyptians, and used as bread; it was sometimes carried to Rome, and the Periplûs makes it an article of importation at Barygâza. It appears also to have been used as provision for mariners; and if this was the favourite bread of Egypt, in preference to grain, Homer might well speak of it as a luxury and delicacy; but his lotus is generally supposed to be the fruit of a tree, by our African travellers. Authors differ, some asserting that it is still common in the Nile, others saying that the lotus now found there has neither pulp nor substance.

69. Μέταξα. See Νῆμα Σηρικόν. D. P.

70. Μοκρότε θυμίαμα. D. P.

An incense called mocrotus or mocroton.

71. Μολόχινα. P.

Coarse cottons of the colour of the mallow. Others read Μοναχὴ, either single threaded or of one colour.

Coarse cotton dyed of a whitish purple, and therefore called molo-china from Μολόχην, *mallores*. Wilford, *Asiat. Dissertation.* vol. ii. p. 233.

Paolino interprets Molochina, tele finissime dipinti e richamente, p. 95. i. e. chintz. Muslins are said to derive their name from Mosul, because they were brought from thence by caravans into Europe.

(Marco

(Marco Polo, lib. i. c. 6.) But there is a distant resemblance between Molochina and muslins, and the Greeks had no soft sound of *ch*. If there is any name in the native language similar to either, we ought rather to seek for an Oriental derivation than a Greek one. At the same time it may be considered, that *purple* cottons might have as general a sale formerly, as *blue* Surats have now.

72. Μόλυβδος. *Lead*. P.

73. Μοτῶ. P.

A species of cinnamon. See *Κασσία*.

74. Μύρον. D. P.

Myrrh or oil of myrrh.*

A gum or resin issuing from a thorn in Arabia, Abyssinia, &c. Bruce has given an account of the plant; he says it is originally from Africa, and that the Arabian myrrh is still an inferior sort. See Bruce, Chambers, and Salmasius.

75. Μυρρίνη. See *Λιθία Μυρρίνη*.

Porcelane. See Gesner and Chambers in voce.

N

76. Νάρδος. D. P. *Nardi Stachys, Nardi Spica, in the Digest, Spikenard.*

This article appears under another form, and as if it were a dif-

* The African is best; the Abyssinian, Arabian, and Indian, worst. Dr. Burgels.

ferent article in the Digest, No. 3; the Nardi Srachys is No. 5, but under No. 3 we read

Folium

1. Pentaſphærum.
2. Barbaricum.
3. Caryophyllum.

The two first of which may be interpreted in conformity to the authorities which follow: 1. Folium Pentaſphærum, Betel. 2. Folium Barbaricum, ſpikenard; but the third is the *Clove*, and is not related to the other two folia or leaves, unleſs it were introduced into the reſcript of the Digest, from the custom-house at Alexandria, becauſe it was a compound of *φυλλον*, a leaf. *Caruo-phullon*, the *nut leaf*, is a name applied to the pink flower, becauſe the ſheath which encloſes the flower is ſcolloped and jagged like the ſheath of the nut. Whether this was transferred to the clove itſelf, on account of the angular points at the head of the *clove*, or nail; or, whether to the plant, I am not able to determine. (See article Caryophyllon); but *Νάρδος* is the ſpikenard called Folium Barbaricum, becauſe it was obtained at Barbarikè, the port of Scindi; and Folium Gangiticum, becauſe it was likewiſe procured at the Ganges, that is in Bengal; *Νάρδος γαπανική* alſo, as it appears in the *Periplûs* (p. 32.), by the general conſent of the commentators, is read, *Νάρδος Γαγγιτική*, and confirmed by the *Periplûs* itſelf, p. 36.

No Oriental aromatic has cauſed greater diſputes among the critics, or writers on Natural Hiſtory, and it is only within theſe few years that we have arrived at the true knowledge of this curious odour, by means of the inquiries of Sir William Jones and Dr. Roxburgh.

Their account is contained in the fourth volume of the Asiatic Researches, and Dr. Roxburgh was so fortunate at last as to find the plant in a state of perfection, of which he has given a drawing that puts an end to all controversy on the subject.

The nard has the addition of spike from the Latin *spica*, an ear of wheat, which, according to Dr. Roxburgh's drawing, it perfectly resembles. And this adjunct is found also in its Arabic name, *sumbul*; and in its Sanskreet appellation, *Jatāmānsī*; as also its Persian title *khustah*, all signifying *spica*.

Sir William Jones, *Asiat. Res.* iv. 117, says, it is a native of Budtan, Nepal, and Morang; and that it is a species of Valerian. It is remarkable that he had himself seen a resemblance of it in Syria, as the Romans or Greeks mention Syria as one of the countries where it is found; but Ptolemy gives it its true origin in these tracts of India. A specimen was brought down to Calcutta from Boudtan at the request of Sir William Jones, and the agents of the Deva Raja called it *pampi*; but it was not in flower. Some dried specimens of it looked like the tails of ermines, but the living ones, as Dr. Roxburgh afterwards found, rise from the ground like ears of wheat. It answers the description of Dioscorides. It is weaker in scent than the *Sumbul spikenard* of Lower Asia when dry, and even lost much of its odour between Budtan and Calcutta. The odour is like the scent of violets; but the living plant is forbidden to be brought out of Boudtan. It was, however, procured by the intervention of Mr. Purling, the English resident; and was at last received in its perfect form by Dr. Roxburgh, who has described it botanically. *Asiat. Res.* iv. 733.

In the age of the *Periplus* it was brought from Scindi, and from the Ganges; which, according to Sir William Jones, we ought to

conclude would be the natural port for it, as coming from Boudtan. This authorizes the change of reading from γαπανική, [gapanika,] to γαγγητική, [gangitikà,] more especially as it is mentioned at the Ganges. Some fanciful inquirers might think they had found the mention of Japan in this passage.

We ought not to omit some particulars from Pliny which are remarkable. He describes the nard with its spica, mentioning also that both the leaves and the spica are of high value, and that the odour is the prime in all unguents. The price an hundred denarii for a pound. And he afterwards visibly confounds it with the malobathrum or betel, as will appear from his usage of hadrosphærum, mesosphærum, microsphærum, terms peculiar to the betel.

Hoffman in voce Foliatum, writes, Folium catasphærum est Folium Malabathri quod inde σφαῖραι, i. e. pilulæ conficerentur. Folium vero Barbaricum, id quod Indicum, Græci recentiores nominarunt quod ex India deferretur per Barbaricum Sinum. F. F.— But it is not the Barbaricus Sinus on the coast of Africa that is meant, but the port Barbarikè in the Delta of the Indus. There the Periplus finds the spikenard, which is the folium Indicum. Folium catasphærum, hadrosphærum, &c. is the betel-leaf. Hoffman adopts Salmasius's opinion in regard to the mistake of Pliny: he seems to think that the malobathrum, as well as the folium, was confounded with the spikenard. If so, the malobathrum Syrium of Horace is the unguent of spikenard, which, according to Sir W. Jones, is found in Syria as well as in India.

The characteristic name of the nard is folium³⁷, the leaf, pre-

³⁷ Salmasius, p. 1065, is clearly of opinion, folium to nard. He says it is always peculiar that Pliny is regularly mistaken in applying to malobathrum betel.

eminently

eminently in contradistinction to *costus*, *the* root, both as the prime odours of their two sorts, the root and the leaf.

Dr. Falconer has justly cautioned me to be sure that the nard of Pliny is *the leaf*. I know no more of natural history than I have obtained from the authorities here cited; but that Pliny mentions both the *spica* and the *folium* of the nard, is certain; and by his expressions I understand, that what we now know to be the *root*, he supposed to be the *growth*. *Cacumina* in *aristas* se spargunt, assuredly expresses something above ground; ideo *gemina* dote *nardi spicas* ac *folia* celebrant, by which we must understand that *cacumina* and *spicæ* are identified. But that Pliny was mistaken, and that the *spica* was really the root, cannot be doubted, after the account that Dr. Roxburgh has given. It is clear also from the authorities adduced by Dr. F. that the ancients were well informed of this. “In
“ one of the receipts for the *Theriaca Andromachi*, *Ναρδοιο τε ριζαν*
“ *Ινδης. Ναρδος σαχυσ, η ριζα ταυτης θερμαίνει μεν κατα πρωτην αποστασιν.*
“ *Æginet. lib. vii.* Galen speaks of it as a root: *εκ τοιςτων δε η ριζα*
“ *συγγινόμενη δυναμεων.* And Arrian: *εχειν δε την ερημον ταυτην τε*
“ *Ναρδος ριζαν, πολλην τε κ̃ ευοσμον, κ̃ ταυτην συλλεγειν της Φοινικας.*
“ And Galen, *lib. xii. de Antidotis, c. 14.* *εφεξης δε της προγεγραμ-*
“ *μενης ο Ανδρομαχος Ινδικην Ναρδον κελευει βαλειν, ηνπερ κ̃ σαχυν ονο-*
“ *μαζομεν Ναρδον, κ̃ τοι ριζαν ουσαν, απο της προς της ασαχους ομοιο-*
“ *τητος, κατα την μορphen.* To these may be added the testimony of
“ the moderns; Murray, *Apparat. Medic. vol. 5. pp. 445, 446.*
“ Lewis, *Mat. Med.* and the following note from Bodæus, which
“ perhaps best solves the question: *In Indica Nardo, salvo meliore*
“ *judicio, spica dicitur cauliculus, multis capillaceis foliolis oblitus,*
“ *ad instar aristarum; nec de nihilo aut immerito Græci antiquif-*
“ *fimi, Romani et Arabes Nardo illi Spicæ appellationem imposu-*
“ *erunt.*

“erunt. Radix quidem est, sed quæ cauliculum e terra emittat,
 “aliquando plures ex una radice capillaceis densis aristatisque foliis
 “vestitos. Not. in Theophrast. p. 1018.” F. F. Add to this the
 testimony of Dr. Roxburgh, and it will appear evidently that Pliny
 was mistaken. Another medical friend informs me, “that the
 “matted fibres, which are the part chosen for medicinal purposes,
 “are supposed by some to be the *head*, or spike of the plant, by
 “others, the *root*—they seem rather to be the remains of the wi-
 “thered stalks, or ribs of the leaves; sometimes entire leaves and
 “pieces of stalks are found among them.” Is not this the origin
 of Pliny’s mistake, which Dr. Roxburgh sets at rest? and may not
 these leaves and stalks be purposely left to increase the weight and
 price; or even to deceive, as the natives are so jealous of their
 plant? All this accords with the quotation of Dr. F. from Bodæus.

But there is still a more remarkable particular in Pliny, which is,
 that he evidently copies the *Periplus* in the three places which he
 allots for the markets of the spikenard; for he mentions Patala at
 the head of the Delta¹⁹ of the Indus, correspondent to the Barbarika
 of the *Periplus*; and another sort which he calls Ozænítides, evi-
 dently agreeing with the mart of Ozéne (p. 27. *Periplus*.); and a third
 sort named Gangitic, from the Ganges, answering to gapanic, for
 which all the commentators agree in reading Gangitic. Very strong
 proofs these, that Pliny had seen this journal and copied from it;
 as he mentions nothing of Ozéne in his account of the voyage, and
 only catches Ozænítides here incidentally. See Salmasius, p. 1059.
 et seq. who is very copious on the subject, and has exhausted all
 that the ancients knew of this aromatic²⁰.

¹⁹ Whether this in Pliny does not apply to
 coast?

²⁰ It resembles the tail of a small animal, in
 Dr. Burgess’s Collection.

70. Ναύπλιος, p. 27. *Nauplius*. P.

It seems to be an inferior tortoise-shell from the context, which runs thus, καὶ χελώνη διάφορος μετὰ τὴν Ἰνδικὴν καὶ ναύπλιος ὀλίγος, i. e. tortoise-shell of superior kind, but not equal to the Indian; and a small quantity of that species called nauplius. It may, however, be a different commodity; but I cannot trace it in Pliny, unless it be the shell of that fish he calls nauplius, lib. ix. c. 30. or 49 Hard. which seems a species of the nautilus; but which Hardouin says, does not sail in its own shell, but a borrowed one.

71. Νῆμα Σηρικόν. D. P.

Sewing filk, or filk thread, from China. If this passage be correct, it proves that filk was brought into India from China, as early as the age of the Periplûs. Νῆμα can hardly be applied to a web, it seems always to be thread.

It is called μέταξα by Procopius and all the later writers, as well as by the Digest, and was known without either name to Pliny; for he says, the women who wrought it had the double trouble of untwisting the filk thread, and then weaving it up into a manufacture. Unde geminus nostris fœminis labor redordiendi fila rursumque texendi. See Procop. Anecd. p. 3. Zonaras ad Concil. p. 231. And for the history of the filk trade at Tyre, see Procop. Hist. Arc. p. 73. Justinian ruined the trade at Tyre, and yet sent the Monks to bring the worm from the East. Procop. de Bello Goth. iv. 17. p. 613. Byz. Hist. See Gibbon.

Αὕτη δὲ ἐστὶν ἡ μέταξα ἐξ ἧς εἰσθασι τὴν ἐσθῆτα ἐργαζέσθαι, ἣν παλαιὸν Ἕλληνες Μηδικὴν ἐκαλεῖν, τάνυν δὲ Σηρικὴν ὀνομαζέσθαι. Procop. Persic. & Vandal. lib. iv. Μέταξα sera cruda. Du Cange. F. Unwrought filk is called Ἐρίον in the Periplûs.

Ἰματία

Ἰματῖα τὰ ἐκ ΜΕΤΑΞΗΣ ἐν Βηρυτῶ μὲν καὶ Τύρῳ πόλεσιν τῆς Φοινίκης ἐργάζεσθαι ἐκ παλαιῦ ἐνώθει· οἱ δὲ τετῶν ἐμποροὶ καὶ δημιουργοὶ καὶ τεχνῖται ἐνταῦθα τὸ ἀνέκαθεν ὤκουν. Procop. Anec. p. iii. Hist. Arc. p. 8.

The manufactures had been long established at Berytus and Tyre. The web was formed from the metaxa; may we not call it organized silk? The price of the metaxa was raised by the taxes imposed in Persia; and, upon the manufacturers raising the price, Justinian fixed a maximum and ruined the trade.

O

72. Ὀθόνιον. *Muslin*. P.

1st sort. Ἰνδικὸν τὸ πλατύτερον ἢ λεγομένη Μοναχὴ.

Wide India muslins called Monakhè, that is, of the very best and finest sort; *particularly* fine.

2d sort. Σαγματογέννη.

Which is evidently the cotton too ordinary to spin, and made use of only for stuffing of cushions, beds, &c. The Greek term is derived from Σάσσω, to stuff, Σάγματα, stuffing, or things stuffed. The article in the Periplûs would be better read Σαγματογέννη, the *sort* of cotton used for stuffing. Marco Polo, lib. iii. c. 29. says, Il Bambagio che si cava di quello, così vecchi non e buon de filare, ma solamente per coltre. And Strabo; ἐκ τέττ δὲ [the cotton plant] Νέαρχος φησὶ, τὰς εὐητρίους συνδόνας ὑφαίνεσθαι, τὰς δὲ Μακεδόνας ἀντὶ κναφάλων αὐτοῖς χρῆσθαι, καὶ τῆς Σαγματοσάγης. Fine muslins are made of cotton; but the Macedonians used cotton for flocks, and stuffing of couches. Mr. Marsden, p. 126. notices the cotton used only for this purpose in Sumatra as the Bombax Ceiba; and Percival mentions the same

in Ceylon, p. 328. See also Dampier, New Holland, p. 65. and Voyage, p. 165. Ὀθόνιον is from ὀθόνη, the thin inner garment of women, in contra-distinction to the χιτὼν of men. Hom. Il. Σ. 595. Meursius proposes Σαγματογούνη, vestis pellicia. E.

Monakhè, single.

3d fort. Χυδαῖον. P.

Coarse muslins, or rather coarse cottons, called at present dungarees; Wilford, As. Differt. vol. ii. p. 233. to which monakhè is opposed as a finer fort.

73. Οἶνος. *Wine.* P.

1. Λαοδικηνός. *Wine of Laodicea*, in Syria. Syria is still famous for its wine. Volney, tom. ii. p. 69. Strabo. d'Anville Geog. An. ii. 134.

2. Ἰταλικός. *Italian Wine.* P.

3. Αραβικός. *Arabian Wine.* P. It is dubious whether it may not be palm or toddy wine, it seems to have been a great article of commerce.

74. Ὀμφαξ Διοσπολιτικὴ. *Dipse, Rob of Grapes from Diospolis.* P.

For the explanation of this article I am wholly indebted to Dr. Falconer, and return my thanks to him more particularly, as it was the commencement of his correspondence. He observed to me, that it was the dipse of the Orientals, and still used as a relish all over

over the East. Dipse is the rob of grapes in their unripe state, and a pleasant acid. I have found many authorities to confirm his suggestion. Pliny, v. 6. xii. 19. xii. 27. xiv. 9. xxiii. called by Columella, Sapa vini. See also Shaw. Dr. Ruffel's Aleppo, p. 58, and Pocock, i. p. 58. made at Faime, and called Beemas, or Pacmas. Iter Hierosol. ex uvarum acinis Mauris Zibib vel Zibiben dictum, p. 357, ex acinis succum exprimunt, coquuntque, donec ad spissitudinem, instar mellis ebullierit, Pacmas id Arabicè vocant, nos defrutum, Itali mosto cotto, mustum coctum, eosque in cibis pro intinctu utuntur, nonnulli aquâ multâ dilutum bibunt, id. p. 387. Ebn Haukal likewise describes it, and calls it Doushab, made at Arghan in Sufiana.

75. *Onyx Arabicus.* D. *Arabian Onyx.*

This article stands in the Digest so unconnected with all that precedes and follows it, that Ramusio, in order to make it a drug, reads it Gum Arabic; and I can hardly think otherwise than that it is a corruption, and that some aromatic produce of Arabia is meant; but what, it is impossible to determine. Mr. Falconer is persuaded "that it is the Onyx used as a box to contain odours or perfumes, " the same as the Alabaster of Scripture, Luke, vii. 37. and Pliny, " lib. xxxvi. c. 8. or 12 Hardouin, strongly confirms this opinion, " for there the Onyx is said to be found in Arabia, and to be the " same as Alabastrites, and to be excavated for the purpose of con- " taining unguents or perfumes; and so Horace Nardi parvus onyx " eliciet cadum." F. I have nothing to object to this but the context.

76. Ὀπήτια, p. 27. *Awls or bodkins.* P.

An article in trade on the coast of Africa, as needles are at this day.

77. Ὀρείχαλκος. *Mountain Brass.*

Used for Ornaments. Ramusio calls it white copper, copper from which the gold and silver has not been well separated in extracting it from the ore.

II

78. $\left\{ \begin{array}{l} Pardi \\ Leopardi \\ Pantheræ \end{array} \right\}$ D. *Tygers, Leopards, Panthers.*

$\left\{ \begin{array}{l} Leones \\ Leænæ \end{array} \right\}$ D. *Lions and Lionesses.*

79. Παρθένοι εὐειδεῖς. P.

Handsome women slaves for the haram are mentioned as intended for presents to be sent up to the king of Guzerat, whose capital was Ozénè or Ougein.

80. *Pelles Babylonica.* D.

Parthica.

Hydes from Babylonia or Parthia, possibly dyed like Turkey or Morocco leather; but Q.?

81. Περίκια. P.

Small hatchets or axes for the African trade.

82. *Pentaspærum. Folium Pentaspærum. D. Nard.*

See article Nard. Mr. Falconer thinks that Pliny has not confounded the Folium, or leaf of the Nard with the Betel as Salmasius asserts; but that he takes the leaves from three different parts of the plant, the large making the least valuable odour, and the least leaves the best; hence, the distinction of hadrosphærum, mesosphærum, microsphærum, and that the pentaspærum of the Digest is still an inferior sort. Of this I am no competent judge, but I think it strange that the distinctions of Hadrosphærum, &c. should be applied by the ancients both to the Betel, as they are by the Periplus, and to the Spikenard as they are by Pliny, if this opinion be founded. Pliny, lib. xxiii. 4. has certainly copied the same authorities as Dioscorides, for he makes malobathrum a masticatory to sweeten the breath, and an odour to put among cloaths, as we sometimes put lavender; both which particulars are in Dioscorides, but lib. xii. 59. Hard it is a *tree* found in Syria and Egypt as well as India. It is much more probable that Mr. Falconer should be right, than one who is little acquainted with Natural History, but my doubts concerning Pliny's confusion are not removed.

83. Πέπερι. *Pepper. D. P.*

Imported from the coast of Malabar, as it still is; the native term on the coast is pimpilim; Salm. p. 1070. or the Sanskreet, pipali. As. Ref. vol. iv. p. 234. The pepper coast is called in Arabic beled-el-fulful. D'Anville, Ind. p. 118.

It was found by the Greeks from Egypt, first in Ethiopia, as an article of commerce brought thither by the Arabs, but was known in Greece much earlier.

Two sorts are distinguished in the Periplus, " and recognized by " Theophrastus, lib. ix. c. xxii. *στρογγυλόν* round, and *απομυγνές* long. " And by Dioscorides, the Betel is likewise a species of the pepper. " Porro Betle foliis Piperis adeo similia sunt, ut alterum ab altero " vix discerni queat, nisi quod Piperis folia paulo duriora sunt, et " nervi excurrentes paulo majores. Bodæus a Stapel in Theo- " phrastum." F. F.

1. Κοττοναρικόν. P.

From Cottonara, the kingdom of Canara, according to Rennell, which is still the principal mart for pepper, or at least was so before the English settled in Sumatra. This is the black pepper. See Marsden's Sumatra, p. 117. White pepper is the black stripped of its outward coat.

2. Μακρόν. P.

Long pepper*, so called from its form being cylindrical, an inch and an half long. It consists of an assemblage of grains or seeds joined close together. It resembles the black pepper, but is more pungent, and it is a species of the East-India pepper, totally distinct from the Cayenne, and used for the purpose of adulteration. This is the reason that we buy pepper ground cheaper than whole.

84. Περιζώματα. P.

Girdles or sashes, and perhaps distinguished from the following article,

(85. Πηχυϊάει ζώναι. P.

Sashes of an ell long,) only in the difference of make or ornament.

* Tabaxir is the common long pepper.

86. Πιννικόν. D.P.

Pearls, or the pearl oyster. See the fishery at Cape Comorin.

87. Πορφύρα διαφόρα καὶ χυδαία, p. 35. P.

Purple cloth of two sorts, fine and ordinary. An article of trade at Moosa in Arabia.

88. Ποτήρια, *Drinking Vessels*. P.

Χαλκὰ, *Brass*. P.

Στρογγύλα, *Round*. P.

Μεγάλα, *Large*. P.

Probably all three epithets apply to the same vessel. An article of import on the coast of Africa.

89. Πυρὸς ὀλίγος. P.

Wheat in small quantities, imported into Omana, or Oman in Arabia.

P

90. Ρινόκερος. *Rhinoceros*. P.

The horn or the teeth, and possibly the skin, imported from the coast of Abyssinia, where Bruce found the hunting of this animal still a trade, which he has described in all of its branches, vol. iv.

91. Σάγγαρα.

91. Σάγγαρα. P.

Boats or small vessels used on the coast of Cochin for conveying the native commodities from the interior to the ports, and sometimes along the coast from Malabar to Coromandel and the contrary.

92. Σάγοι Αρσινωτικῶι γεγναμμένοι καὶ βεβαμμένοι, p. 14. P.

Rugs or cloaks made at Arsinoë (Suez), dyed, and with a full knap.

93. Σανδαράκη. P.

Red pigment, Salm. p. 1155. found in gold and silver mines. Pliny. Ore of Cinnabar. Dr. Burgess. Sandaracham et Ochram Juba tradit in insula rubri maris Topazo nasci, inde nunc pervehuntur ad nos. Plin. xxxv. 22. Hard.

94. Σακχαρι. D. P. Sugar.

Made at Tyre in the 12th century. Benjamin of Tudela. Bergeron, p. 17. But when first planted in Europe, dubious. See article 60.

95. Σάπφειρος. Sapphire Stone. D. P.

The ancients distinguished two sorts of dark blue or purple, one of which was spotted⁶¹ with gold. Pliny says, it is never pellucid, which seems to make it a different stone from what is now called

⁶¹ Dr. Burgess has specimens of both sorts, the one with gold spots like lapis lazuli, and not transparent.

sapphire. Dutens says, the true azure sapphire was consecrated to Jupiter by the ancients.

96. *Sarcogalla*, or *Sarco-colla*. D.

A styptic, from Σαρκῶξ and κολλάω, to unite the flesh, that is, to draw the lips of the wound together, and heal it. Supposed to be gum Arabic by some; but others say, from a tree in Persis. Ramusio reads the text without any notice of al chelucia or sarcogalla, and concludes all three under the following article, which is read onyx Arabicus, but which he reads gum Arabic, meaning, perhaps, to render the three consistent; and a drug seems more requisite than the onyx-stone; but see Onyx Arab. Dr. Falconer says, the sarcocolla is not gum Arabic; but adds, that it is well known in the shops, though the tree, or country which produces it, is not known. See Chambers in voce. "Fit et ex sarcocolla, ita arbor vocatur, gummi utilissimum pictoribus et medicis. Plin. lib. xiii. 11." F.

97. *Sardonyx*. D.

"The sardonyx is next in rank to the emerald: Intelligebantur colore in Sarda, hoc est velut carnibus ungue hominis imposito, et utroque translucido, talesque esse Indicas tradunt. Arabicæ excellunt candore circuli prælucido atque non gracili, neque in recessu gemmæ aut in dejectu renitente, sed in ipsis umbonibus; nitente præterea substrato nigerrimi coloris. Plin. xxxvii. 7." F. See Chambers in voce, where, it is said, the sardonyx of Pliny is not what now bears the name but a camæa. I have not found this passage as cited in Pliny, but conclude I have the numerals wrong: the sardonyx is mentioned in the chapter adduced.

98. Σηρικὸν

98. Σηρικὰ δέρματα. *Chinese Hides or Furs.* P.

What is meant by δέρματα no where appears, unless it can be applied to the τάρποναι, whence the malobathrum was procured. But this is very dubious. See Μαλόβαθρον. Pliny mentions the Sères fending their iron wrapt up in or mixed vestibus pellibusque. F. See article following.

99. Σίδηρος. *Iron.* P.

An import into Abyffinia for the manufacture of spear heads, to hunt the elephant, rhinoceros, &c.⁶²

Ἰνδικός. D. P. *Ferrum Indicum.* D.

Iron tempered in India.

“ Ex omnibus generibus palma Serico ferro est. Sères hoc cum
“ vestibus suis pellibusque mittunt. Secunda Parthico, neque alia
“ genera ferri ex mera acie temperantur, cæteris enim admiscetur.
“ Plin. lib. xxxix. c. 14. Plutarch (in Craffo). And Arrian de Rebus
“ Parth. or the work ascribed to him, mentions that the Parthians
“ covered their armour with leather, but at the moment of attack
“ they threw off the covering, and appeared glittering in their bur-
“ nished steel. Milton also, Par. Regained, lib. iii.” F. In mon-
tibus Kabel (Cabul) inveniuntur ferri fodinæ celeberrimæ, et humanis
usibus aptissimæ, producunt enim ferrum acutum et venustum. Al.
Edrissi.

100. Σινδόνες. D. P.

Fine linen of any sort, but that imported into Abyffinia might be Egyptian, and possibly of cotton; but

⁶² To cut like an Indian sword, is a common Arabic proverb in Arabsha. And in (as drills for working the granite obelisks) were made of Indian iron. Shaw quotes the Egypt, Shaw (p. 364.) says, the hardest tools Periplus, but not perhaps justly.

Σινδόνες αἱ διαφορώταται Γαγγιτικαί, P.

Can be nothing else but the finest Bengal muslins.

101. Σῖτος. *Wheat Corn.* P.

102. Σκέπαρνα. *Adzes.* P.

In contradistinction to πελὺκια, hatchets.

103. Σκεὺή αργυρᾷ. *Silver Plate.* P.

104. Ὑαλὰ. P.

Vessels of chrystal, or glass in imitation of chrystal.

105. *Smaragdus.* D. The Emerald.

There are twelve sorts, according to Pliny and Isidorus. (Gothofred.) Nero used an emerald as an eye-glass; and Gothofred, or Isidorus, supposes that the emerald has a magnifying power. Mr. Falconer imagines it to magnify only from the density of the medium. Mr. Dutens denies that the ancients had any knowledge of the emerald, and in this he is supported by Tavernier, the Abbé Raynal, Harris, and Bruce. The green gems which the ancients called emeralds, were all of inferior quality to those brought from Brasil and Peru; and from the size mentioned of some of them, they are justly supposed to be Fluors: but we read of an emerald island in the Red Sea, and much notice is taken of them, both by naturalists and poets. The greatest difficulty to be surmounted by Mr. Dutens seems to be the archbishop of York's emerald, engraved with a Medusa's head of Grecian sculpture, and brought from Benares; but this, he calls a green ruby, p. 14. See Bruce, i. 206. who says, Theophrastus mentions an emerald of four cubits, and a pyramid
sixty

sixty feet high, composed of four emeralds. And Roderick of Toledo talks of an emerald table in Spain 547 feet long! But Bruce says, likewise, the true emerald is as hard as the ruby. How then are we to distinguish between an emerald and a green ruby? Bruce visited the Emerald Island in the Red Sea, and found nothing more like emeralds than a green chrystalline substance, little harder than glass; and this, he adds, is found equally on the continent and the island. Emeralds have been found in Peru, in the barrows of the dead, of a cylindrical form; so that the Peruvians, anciently, must not only have known the gem, but valued it; and must also have possessed the art of cutting it. Ulloa. Mr. Falconer has suggested to me a singular passage in Pliny, which may be applied to Nero's emerald, and which had escaped my notice: *Idem plerumque et concavi ut visum colligant.* Plin. lib. xxxvii. c. 5. or 16 Hard.; so that the emerald mentioned in this instance might truly be considered as an eye-glass for a short sight. F. The whole chapter is so very express, that it is hard to conceive what is an emerald, if Pliny's is not: *Seythicorum Ægyptiorumque tanta est duritia ut vulnerari nequeant.* This seems to express that hardness which the jewellers try by the file.

106. *Σμύρνα.* Myrrh. D. P.

“ The myrrh of the moderns is the same as that described by the
 “ ancients, but the tree from which it is obtained is still doubtful.
 “ It is likewise still brought from the same countries, that is, Arabia,
 “ and the western coast of the Red Sea. But the Trogloditic, or
 “ Abyssinian, is preferred to that of Arabia. Murray, Apparatus
 “ Med. vol. vi. p. 213. See Bruce, vol. v. p. 27. *Omnium prima est*
 “ *quæ Troglodytica appellatur, accepto cognomine a loco in qua*

"provenit, splendens, subviridis ac mordens. Dioscorid. Matthioli,
 "lib. i. c. 67. Plin. lib. xii. c. 15. It was procurable in Arabia,
 "imported from the opposite coast of the Red Sea." F. F.

Διαφέρεισα τῆς ἄλλης. P.

Of a superior sort.

Ἐκλεκτή. P.

Of the best sort.

107. *Spadones*. D. *Eunuchs*.

108. Στακτή. Gum. D. P.

Ἀβειρμινάια, read Σμυρνάια, by Bochart, Geog. Sac. ii. 22. Salm.
 520. Extract or distillation from myrrh, of the finest sort. The
 reading is proved by Salmasius from a similar error in an inedited
 epigram. Minæan; Σμύρνης Ἀμμιννέας, Dioscor. lib. i. c. 78. Plinius
 habet Minæa, lib. xii. c. 16. and Hesych. Ἀμινᾶιον οἶνον. Stephan.
 in voce. F.

109. Στήμι. Στίμι. P.

Stibium for tinging the eyelids black.

110. Στολαὶ Ἀρσινθητικαὶ. P.

Women's robes manufactured at Arsinoë or Suez.

111. Στύραξ. *Storax*. P.

One of the most agreeable of the odoriferous resins. There are
 two sorts, storax in the tear, supposed to answer to the ancient styrax
 calamita,

calamita, from its being brought in a hollow reed, or its distillation from it; and common storax, answering to the *stacte styrax*⁶³ of the ancients. It now grows in the neighbourhood of Rome; but the drug was anciently brought thither from the islands in the Archipelago. See Salm. p. 1026. Chambers in voce. Most of these gums, resins, and balsams have in modern practice yielded to the American, as this seems to have given way to the balsam of Tolu.

112. Σώματα, p. 15. P.

Slaves from Africa, an ancient trade! but the number was not great.

Υ

113. ῥάκινθος. D. P.

The hyacinth or jacinth, a gem which Salmasius says is the ruby, p. 1107. See Solinus, c. xxx. p. 57. where it seems to be the amethyst. And Mr. Falconer concludes, that it is an amethyst, from the expression of Pliny, *emicans in amethysto fulgor, violaceus dilutus est in Hyacintho*; but Hardouin reads, *emicans in amethysto fulgor violaceus, dilutus est, &c.*, and violaceus fulgor is surely the peculiar property of the amethyst. Salmasius adds, that the Oriental name of the Ruby is Yacut from Hyacinthus; but Dutens says the hyacinth is orange Aurora, inclining to poppy, p. 35. and makes the Jacinth a distinct gem from the Ruby; but the Ruby, he observes,

⁶³ Strabo mentions styrax in Pisidia; a distillation from a tree, caused by a worm breeding in it. Lib. xii. p. 570.

likewise, is of a poppy colour, and is called Hyacinth when it has the least tincture of yellow. Whether this distinction applies to the ancients, I am not a judge to determine; but if the hyacinth is a distinct species, I can find no classical name for the ruby. See Pliny, xxxvii. 9. or 41. Hard. and fulgor violaceus seems appropriate to the amethyst.

Φ

114. *Fucus*. D. *Red Paint*.

X

115. *Χαλκός*. *Brass or Copper*. P.

116. *Χαλκεργήματα*. P.

Vessels of brass, or any sort of brazier's work.

117. *Al-chelucia*, which Ramusio reads *Agallochum*, *Aloes*. D.

Matthioli coincides with Ramusio in the correction. Dioscor. p. 40. "Agallochum is the aloes wood, xylo aloes, lignum aloes, the lign aloes of scripture. Numb. xxiv. 6. and not aloes the drug. The best is heavy, compact, glossy, of a chestnut colour, intermixed with a blackish and sometimes purple shade. It is resinous and balsamic. Neuman's Chemistry, by Lewis." F. F. I was myself disposed to think Chelucia, *χελυκία*, a corruption of *Χελυς*, Chelys, the tortoise, *i. e.* tortoise-shell.

118. *Χελώνη*.

118. Χελώνη. D. P.

Tortoise-shell seems to have formed a great article of commerce, for ornaments of furniture, as beds, tables, doors, &c. both in Italy, Greece, and Egypt. It was brought from the coasts of Africa near Moondus, from Socotra, Gadorfia, Malabar, and the Lackdive, and Maldivé Islands, and from Malacca. The latter seems to be designed by the χρυσιονήσοι of the Periplus.

119. Χιτῶνες. P.

Under garments, imported from Egypt into Africa.

120. Χρῆμα. Specie. P.

The Periplus is very accurate in noting the ports where it was necessary to trade with specie; and in more instances than one, notes the advantage of exchange.

121. Χρυσόλιθος. Chrysolite. P.

Sometimes the same as chrysites, the touchstone for gold, Salm. p. 1103; but described as a stone as it were sprinkled with spots of gold, Salmasius, p. 407. who points out what it is not, but cannot determine what it is. It may well be the topaz⁶⁴, as Dutens makes it, p. 18.

122. Χρυσῆν. P.

Used with δηνάριον, as is ἀργυρῆν also, expressing gold and silver denarii.

123. Χρυσώματα. Gold Plate. P.

⁶⁴ The Bohemian is yellow, with a greenish nut; the Oriental is very pale yellow. Dr. Burgess's Oriental topaz, deep yellow.

There is a corrupt passage in the Digest, which appears thus:
Chelynie hopia Indica adferta.

Gothofred joins it to the preceding article Beryllus; and Ramusio reads it Beryllus Cylindrus. Salmasius supposes it to be a separate article, and reads it Chelone Æthiopa, as one species of the Chelonia of Pliny, (xxxvii. 56. Hard.) that is, the gem called the Æthiopian Tortoise Eye, and Chelone Indica, another species; and it may be added, that this is conformable to the order of the Digest, when it mentions two species of the same article. The passage, however, is much doubted, and is sometimes joined with adferta, and sometimes separated. Hopia Indica adferta, opera Indica adferta, omnia Indica adferta, and again opera Indica, tineta, adtineta, &c. &c.; but if we accede to Salmasius in regard to the two species of Chelone, and place the period at Indica; adferta may be another general title like ferveral in the Digest, and easily converted into Serica, it would then stand thus:

Serica,	-	-	general title,	filk.
Metaxa	-	-	1st species,	filk thread.
Vestis Serica	-	-	2d species,	filk web.
Nema Sericum,	-	-	3d species,	sewing filk.

The only objection to this is, that Metaxa and Nema Sericum are usually applied to the same thing. Mr. Falconer supposes that tineta, if the reading can be supported, may mean dyed or coloured filks. F.

Camphor. *Cafur, al Kafur*, of the Orientals. I had expected to find this article in the Digest, but as it comes particularly from Java, Sumatra, and Borneo, this may account for its being unnoticed. The history of it occurs in Schikard's *Tarik*, p. 185; who commends Marco Polo for his veracity, (was he not the first who brought the knowledge of it to Europe?) and he adds, that Al Edrissi speaks of Lanchialos, and then Kalan, where Camphor is obtained, and Kalan he supposes to be Borneo. This is a proof that the drug was known to the Arabians in the twelfth century; but the Lanchialos of Al Edrissi is very dubious; he certainly makes it a different island from Ceylon, and yet Lanca Ilam is one of the Hindoo names of Ceylon. See Al Edrissi. p. 35.

Capilli Indici. D.

THE END.

APPENDIX

ERRATA.

- Page 257. note 75. line 5. *for* Appendix, No. I. *read* Appendix, No. III.
371. line 3. *for* "ἔλος ἄργη, *read* "ἔλος ἄργη,
372. — 10. *insert* a full stop *after* place, *and* a comma *after* Pliny.
380. note 114. line 8. *for* serivere, *read* scribere.
480. the running title of *Sequel to the Periplus of the Erythræan Sea*, should have concluded with p. 481.
494. line 7. *delete* the comma at Maes, *and* place it at Ptolemy.
534. line 13. *for* בתאשרים, *read* בתאשרים
552. — penult. *delete* by any one.
- Appendix, p. 45. note 51. line 3. *for* Plantagin, *read* Plantagini.



CORRECTIONS.

- Page 16. Part I. note 20. Why does Wesseling tell me to believe this? This ought not to have been imputed to Wesseling, but to Stevens in Wesseling's edition of Ctesias.
18. Part I. line 8. The position of Palibothra, fixed by Sir W. Jones, is again rendered dubious by Lieut. Wilford. Asiatic Researches, vol. v. p. 272. Lond. ed.
27. Part I. note 48. Plutarch does not say what is imputed to him, but the contrary: it never has happened, and never will, *except in that country*. This error is acknowledged with some degree of mortification.
74. Part I. note 14. Beled signifies a country, not a castle.

ADDITIONS.

- Page 275. Part II. The Negra of Cedrenus is Najeran.
323. Part II. Sanuto's Map is noticed by d'Anville, Antiq. de l'Inde, Supplement, p. 187. but not its claim to antiquity.

